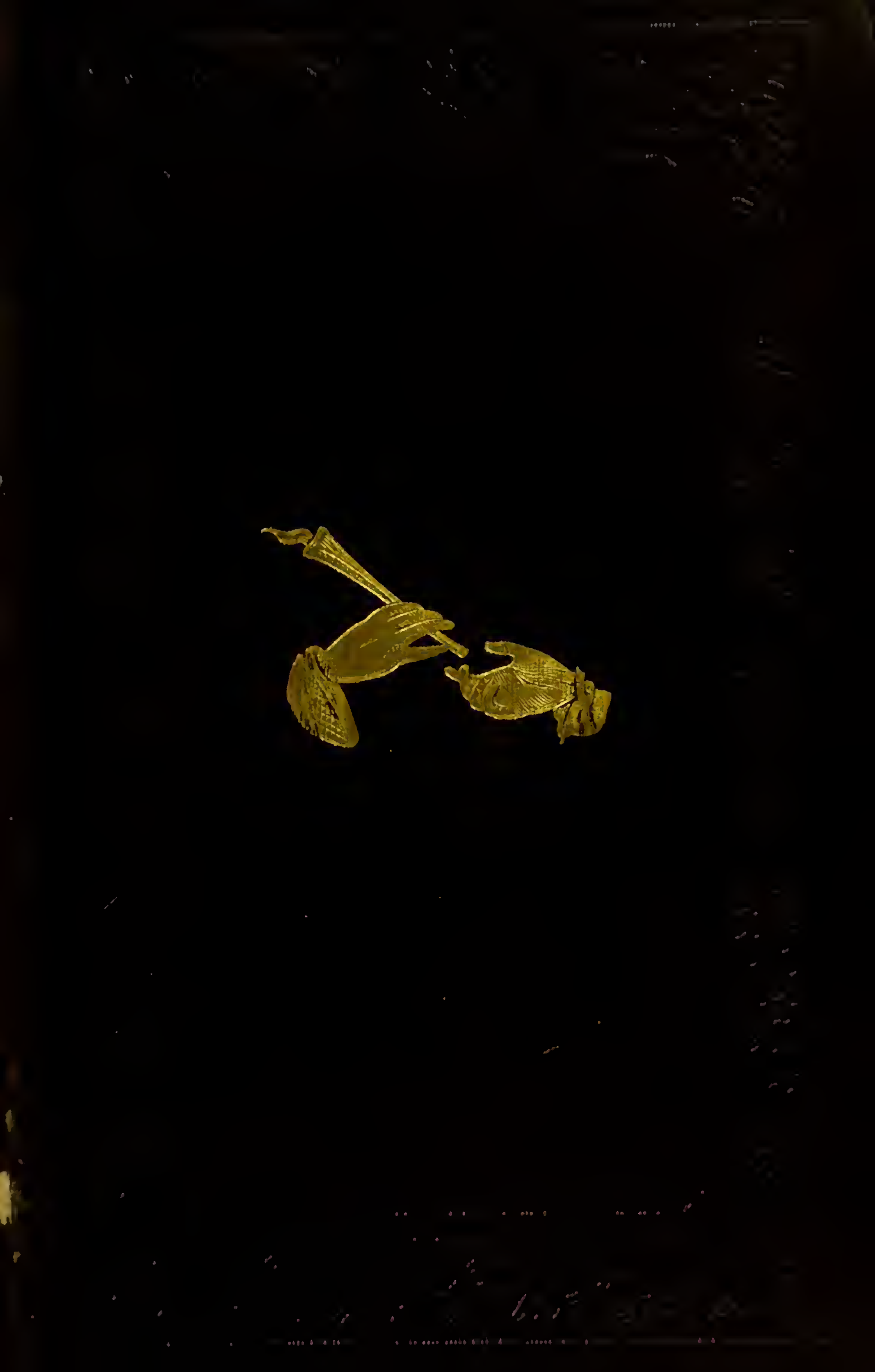




THE OCCULT SCIENCES.

THE

PHILOSOPHY OF MAGIC,

PRODIGIES, AND APPARENT MIRACLES.

FROM THE FRENCH OF

EUSEBE SALVERTE.

WITH NOTES ILLUSTRATIVE, EXPLANATORY, AND CRITICAL,

BY ANTHONY TODD THOMSON, M.D., F.L.S., &c.

"Non igitur oportet nos magicis illusionibus uti, cum potestas philosophica doceat operari quod sufficit."—Rog. Bacon, *De secr. Oper. Art. et Nat.*, c. v.

IN TWO VOLUMES.

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PREFACE BY THE AUTHOR.

Is not the history of *civilization*, in the most extended sense of this word, the history of mankind in a social state, one of the most important of all our studies?

About twenty years ago, consulting less my talents than my zeal, I undertook to retrace this history, and in 1813 I published an introduction,* in order to give an idea of the manner in which I thought it should be treated.

This essay received some encouragement, which only convinced me of the necessity of examining more profoundly so important a subject. The history and origin of the sciences occupied a large place in those researches in which I was engaged, and I was soon convinced that it was impossible to have a just idea of the extent to which the sciences had been carried among the ancients, without examining the kind of knowledge employed by the founders of those sciences in working the wonders related in their annals. In the course of this inquiry, I discovered that much information was shut up

* *De la Civilisation depuis les premiers Temps Historiques jusqu'à la fin du* xviiie *siècle, Introduction.*

in the temples, and employed there, during many ages, to excite either wonder or fear; but, in the flight of time, decaying and at last fading altogether away, leaving behind only imperfect traditions, which have since been ranked as fables. The attempts to restore life to these ancient intellectual monuments accomplished a part of my task, which, at the same time, filled up a great period in the history of the human mind. My treatise on this object soon became too ample to form merely a part of the principal work for which it was originally intended. It was easy to detach it, although connected with the object which I had proposed to myself to attain; and thus separated, it forms a whole, susceptible of special interest.

I shall content myself with bearing in remembrance the principle which has guided me in my various researches: that principle which distinguishes two very strongly marked forms of civilization, the *fixed* form, which formerly governed almost the whole world, and which still subsists in Asia; and the *perfectible* form, which more or less reigns throughout Europe, although it is not there fully developed; nor has it, as yet, borne all those fruits which its elements permit us to anticipate in its progress to perfection.

In 1817 I published, in the "*Esprit des Jour-*

naux" (July volume), an article, in which those principles were pointed out, which are here more fully developed, and many of the facts and arguments on which they rest. I only mention this on account of the date, that I may not be accused of having borrowed, from some works which have appeared more recently, those ideas and explanations which I have now a right to reproduce, since they were originally my own. Far from deceiving myself otherwise on the insufficiency of this first essay, I have remodeled it entirely, and looked it over several times, with the assistance and advice of learned and benevolent men.

The first edition of this book, published in 1829, being entirely sold, I found it necessary, in preparing a second, to take advantage of those criticisms which had been addressed to me, and of the numerous observations that my subsequent studies had furnished. The theory which guided me remains the same; I shall sum it up in a few words.

1. When the improbability of a fact is the chief objection to the belief in its reality, the evidence which attests it regains all its value, if the improbability be proved to be only apparent. Can a similar test be applied with success to the greater part of the prodigies and assumed miracles related by the ancients? It

is more reasonable, then, to admit the truth of the facts, and the accuracy of their explanation, than to condemn as impostures those recitals, of which modern discoveries have frequently demonstrated the truth.

2. It is an incontestable fact, that anciently science, and more especially that science which was confined to the temples, was enveloped in a thick veil to conceal it from the eyes of the vulgar; and that it was employed to produce wonderful works fitted to subdue the obstinacy and credulity of the people, is a supposition so natural, that it will be difficult to oppose it, at least by any sound reasons. In the marvelous recitals which have been handed down to our times, some of this mystical learning may be discovered; and in prosecuting the research, we endeavor to complete the history of science and of mankind.

A

BIOGRAPHICAL SKETCH

OF

M. SALVERTE,

FROM AN ORATION SPOKEN OVER HIS GRAVE

BY M. FRANCOIS ARGAO,

MEMBER OF THE CHAMBER OF DEPUTIES AND OF THE INSTITUTE.

SALVERTE was born at Paris in 1771. His father, who filled a high situation in the administration of finance, destined him for the magistracy. At eighteen, after a brilliant course of study at the College of Juilly, Salverte entered at the Châtelet as an *avocat du roi*. At this period France awoke from a long and profound torpor. With the calmness which is always the true characteristic of strength, but with the energy which a good cause can not fail to inspire, her children demanded on all sides the abolition of despotic government. The voice of the people proclaimed that the distinction of caste wounded at once human dignity and common sense; that all men should weigh equally in the scale of justice; that religious opinions

can not, without crime, be subject to the investigation of political authority.

Salverte had too much penetration not to perceive the vast extent of reform which these great principles would introduce, and not to foresee that the brilliant career on which he had just entered might be closed to him forever. Behold, then, the young avocat du roi, from his first entrance into life, obliged to weigh his opinions as a citizen against his private interest. A thousand examples demonstrate that in these circumstances the ordeal is harsh, the decision doubtful; let us hasten to declare that the patriotism of Salverte carried it by main force; our colleague, without a moment's hesitation, ranked himself with the most eager and conscientious partisans of our glorious political regeneration. When, after a time, a culpable opposition and the insolent interference of foreigners had thrown the country into disorder, Salverte, with all the superior classes, was deeply afflicted. He foresaw the advantage that would be taken of it, sooner or later, by the enemies of the liberty of the people; but his reasonable grief did not detach him from the cause of progression. He was deprived of the situation he held in the office of foreign affairs; he answered this unmerited brutality by requesting an examination by a commission as an offi-

cer of engineers, and a mission to the army. The prejudices of the time caused the son of a *fermier-général* to be refused military service; Salverte, however, not discouraged, requested at least to be allowed to be useful to his country in a civil career. He entered, therefore, as a pupil, the College of Civil Engineers, and soon afterward became one of its most zealous tutors.

Salverte was too good a Frenchman to remain insensible to the glories of the empire; he was, on the other hand, too friendly to liberty not to perceive the heavy and firmly riveted chains that covered the abundant harvests of laurels. He never let fall from his lips or his pen a word of praise that could swell the torrent of adulation, which so soon led astray the hero of Castiglione and of Rivoli.

Our colleague devoted the whole period of the existence of the empire to retirement and study. During that time he became, by persevering labor, one of the most learned men of our age, in languages, science, and political economy.

Salverte was not mistaken as to the reaction of the measures into which the second restoration would be inevitably led to precipitate itself. He thought that, in spite of the explicit wording of the capitulation of Paris, the thunderbolt

of political passions would fall upon many of our military leaders; he guessed that these sanguinary acts would be excited, or at least encouraged, by the allied generals; he foresaw that in the South those odious *dragonnades* would be renewed which history has ranked among the darkest stains in the reign of Louis XIV. He felt his heart oppressed by the prospect of so direful a future. He resolved, above all, to avoid the humiliating spectacle of the military occupation of France, and he therefore set out for Geneva. Madame Salverte, so eminently distinguished, so capable of understanding and of entering into his noble feelings—whose fate it had been to be united to two men,* who in different modes have done equal honor to France—accompanied her husband in this voluntary exile, which lasted for five years.

The public and political life of Salverte only commenced, properly speaking, in 1828. In that year one of the electoral districts, composed of the third and fifth municipal districts of Paris, confided to our friend the honor of representing it in the Chamber of Deputies. With a few weeks' interruption, he ever afterward retained this honor;† and during the eleven

* M. de Fleurieu, who was successively *Ministre de la Marine, Sénateur*, and Governor of the Tuileries—and M. E. Salverte.

† In 1839, at the time of the general election, M. E. Salverte

years of his legislative career, he was a model of honesty and independence, zeal and assiduity.

Our age is essentially a writing age. Many persons have doubted the necessity of the innumerable official distribution of speeches, reports, tables, and statistics of all kinds, which daily overrun our abodes. It is even said that not one deputy has ever had the time or the perseverance to read the whole of these pamphlets; but I am mistaken, gentlemen; one exception is cited by the public, and that exception is M. Salverte.

There is not a single person who, casting aside party feeling, does not hasten to do homage to the integrity of the deputy of the fifth district of Paris. Perhaps the same justice has not been rendered in other particulars. The ambitious Salverte, since I am forced to connect two words so little suited to each other, never accepted a single one of those gewgaws, which, under the name of decorations, crosses, and ribbons, are so strenuously sought after by all classes of society. The ambitious Salverte,

was paralyzed, almost dying; the electors of the fifth district of Paris, who knew the desperate state of their former deputy, wished, nevertheless, to render him a last homage in again choosing him to represent them; and M. Salverte, without the slightest canvass, was re-elected by an immense majority. This homage, so rare at the period in which we live, was as honorable to those who bestowed it as to him who received it.

after the three immortal days, refused the important place of director-general of the posts. Still later, the ambitious Salverte replied to an offer of a ministerial appointment, by demanding conditions so distinct, so precise, so liberal, that they were in his opinion, as they proved to be in fact, equivalent to a formal refusal. When we recollect the excessive readiness of legislative votes on matters of taxation, the reserve, the rigidness of Salverte, far from being a cause of reproach, presents to me the most honorable feature of his Parliamentary career. On questions where the honor, the dignity, or the liberty of France was concerned, the vote of our colleague was certain.

Is it not principally to the deep indignation, to the passionate repugnance, that every institution opposed to the strict rules of morality, that existed in the noble and elevated heart of our friend, that the town of Paris owes the suppression of those privileged houses, peopled by agents of the police, which were hideous gaming houses, in which the honor and fortune of families were daily swallowed up? The memory of Salverte has nothing to fear from the poisoned darts of calumny.

PREFACE BY THE EDITOR.

The author of the following work, one of great erudition and research, has endeavored to establish a theory which maintains that the improbability of the prodigies and assumed miracles related by the ancients is not sufficient to authorize their being regarded as fabulous, "if that improbability be proved to be only apparent." He founds his reasoning on the fact that the degree of scientific knowledge existing in an early period of society was much greater than the moderns are willing to admit; but that it was confined to the temples, carefully veiled from the eyes of the people, and exposed only to the priesthood. This fact was well exemplified in Egypt, where the ascendency of the priesthood, from this cause, was so paramount, that a prince could not be established on his throne until he was initiated into the greater mysteries of the temples; yet, prior to that period, if the royal personage happened to be a member of the military order, he could not be a partaker of these important secrets until he became king.*

The priests, consequently, were justly esteemed to possess all the knowledge that could be acquired by a peculiar education ingrafted upon superior understanding; and they constituted a hierarchy, having almost unbounded influence

* Clement of Alexandria bears evidence to this fact.

in the civil as well as the religious polity of the state. As priests, they were the interpreters of the sacred books, the confidential advisers of the monarch, and the regulators of his conduct. They were also the judges of the land, and filled most of the important offices of the government. Their great object was to maintain their influence over the multitude; for which purpose, they not only preserved all knowledge in their own body, but intrusted the higher mysteries of their faith only to such individuals, even of the priesthood, as were known to excel in virtue and wisdom. To render their ascendency, also, over the minds of the people more secure, they pretended to skill in divination; to be able to presage future events; to foresee and to avert impending calamities, and to bring down the vengeance of the gods upon the profane for every dereliction of duty, or neglect of their service.

It must be evident that such a state of mental control could not be preserved without operating on the superstitious feelings of the multitude; consequently, sacrifices, rites, and ceremonies were instituted; and displays of sacerdotal power over the elements of nature which appear altogether improbable were witnessed. The object of our author, as I have already said, was to explain the character of that power, and to remove the effects produced by it from the region of fable, by demonstrating that their improbability can be proved to be only apparent. How far he has succeeded I shall leave to the readers of his proofs to determine; but, like all promulgators of a theory, he has attempted to

extend it too far, and has supposed it capable of explaining not only the apparent miracles of Polytheism, but even those which, in a great degree, form the foundation of our purer faith, and which the benevolence of the Deity deigned to mortals as a revelation, and the best sanction of its Divine origin.

For the above reasons, in undertaking the task of editing these volumes, I have felt it my duty to expunge from their pages every passage referring to the sacred Volume; and, at the same time, to change somewhat the title of the work, by substituting the words "apparent miracles" for the word "miracles." This has not been done without due consideration, and from a conviction that the author had no correct idea of miracles, and, consequently, could not be supposed to regard those of the Bible as objects of belief. I consider it necessary, however, after this assertion, to lay before the reader my own opinions of the distinction between real and apparent miracles. But, before doing so, I must disown my belief in an opinion often put forth, that the indulgence of a certain degree of skepticism tends to improve argumentative acuteness; on the contrary, in clouding with a doubtful light both truth and error, it creates a tendency to make error as worthy of assent as truth.

We may define a real miracle a new and extraordinary event, added to the ordinary series of events; the result of extraordinary circumstances, and such as may be reasonably supposed to proceed directly from the Divine Will operating on the usual phenomena of the

universe: certainly "not a violation of the laws of nature."*

The recitals of real miracles that have been witnessed, and the opinion that they are likely again, at any time, to be witnessed, I may unhesitatingly assert can only be denied by him who is skeptical as to the direct operation of the Supreme Power which created the world, the greatest, and assuredly the most incomprehensible of all miracles. In every real miracle the Deity must directly act, as it can not be regarded otherwise than "as a new event resulting from a new antecedent,"† depending wholly on the will of the Omnipotent, in the same manner as the creation of the world.

One of the greatest miracles, next to that of the creation, is the universal deluge, a miracle anterior to all existing records, and yet universally believed by every nation and people on the face of the globe. It is, indeed, remarkable that a theological philosopher, an amiable and pious dignitary of the Church of England, Bishop Burnet, should have labored to explain this awful catastrophe upon physical principles. It is unnecessary to enter upon any refutation of the absurd, hypothetical romance of this worthy divine. He conceived that this globe consisted of a nucleus of waters, surrounded by a crust of solid earth, which "at a time appointed by Divine Providence, and from causes made ready to do that great execution upon a sinful world," fell into the immense abyss, the waters of which, rushing out, overflowed "all the parts

* *Brown's Inquiry into the Relation of Cause and Effect*, Notes E F, p. 500–540.

† Dr. Brown, l. c.

and regions of the broken earth during the great commotion and agitation of the abyss."

Another theory, advanced by Mr. Whiston, although more plausible, yet is not more difficult of refutation than that of Burnet. He attributed the awful phenomenon to the near approach of a comet. I have said it is more plausible than that of the bishop, because the effect of such a shock might be, as La Place has stated (supposing it possible), to change the axis and motion of rotation of the globe; and, consequently, not only to overthrow every thing upon its surface, but to cause the waters to abandon their ancient beds, and to precipitate themselves upon the equator, drowning every man and animal in their progress. But this opinion can not be supported, even upon the physical proofs that are so plausibly and ingeniously advanced. In the first place, there is every astronomical certainty that no change has taken place in the axis of the globe; in the second place, the deluge, as it is recorded in the Bible, continued only one hundred and fifty days, a period not of sufficient duration to cause the extensive deposits in the crust of the earth detected by geologists, which must, therefore, be referred to some prior catastrophe. Neither have any human bones been found in these deposits, although the bones of many other mammalia, equally perishable, are abundantly scattered through them. Indeed, it is probable that the bones and debris of any animals destroyed by the deluge would not be preserved; as the bodies of both man and animals being exposed to the air when the waters retired, they would undergo rapid decomposi-

tion and return to their primeval earth. In the third place, La Grange and La Place have demonstrated that although, as Sir Iaac Newton conjectured, great irregularities and disturbances may occur in the action of one planet upon another, yet they are counterbalanced by the period of every planet's revolution, and its mean distance from the sun being unassailable by any of the causes of change. From these elements, therefore, we are authorized to affirm that the utmost order and regularity must be preserved in our system, and disorder so excluded, that neither a universal deluge, nor any extraneous cause of destruction to this globe, can ever occur without the immediate interposition of the Creator; or, in other words, without a direct miracle. In this great miracle, however, it must not be supposed that there was any violation of the laws of nature, but that a new event was required for a special purpose, and that it was effected by a direct act of the Deity.

In contemplating the tremendous and awfully sublime nature of the universal deluge—the magnitude of the catastrophe—the overthrow of a world—it can not but be regarded as an essential ingredient in constituting it a miracle. But such sublime effects are not necessary to constitute a miracle: the transmutation of water into wine at Cana; the healing of the sick; and the raising of Lazarus from the grave, with the other extraordinary actions of our Savior, are equally deserving the name of miracles, and equally inexplicable upon every principle except that which has been already stated as constituting a miracle. The Divine Will that preceded

them may be safely regarded as the efficient cause of their miraculous results; and none but an atheist would exclude the exercise of Omnipotence in producing new events at any period, as well as at that of the creation.

But it may be justly argued that every hitherto unobserved, and, therefore, new and extraordinary event, which is inexplicable by our experience, can not be regarded as a miracle. Certainly not. The fall of aerolites has frequently taken place, although we are utterly ignorant of the peculiar combination of circumstances that physically precede them; and, when first observed, they must not only have excited the utmost astonishment, but given sufficient occasion for belief in their miraculous character. They have now so frequently been observed, that the phenomenon can no longer be doubted; they can not, therefore, be regarded as miracles, because "the necessary combination, whatever it may have been, must previously have taken place;" and although they were not observed, yet there is much probability that they must have frequently before fallen. The physical probabilities, therefore, have only to be weighed, as in the case of every other extraordinary event related to us; and, according to the result, our belief or disbelief will be fixed. If the event, however extraordinary, can be explained by physical causes, it can not be regarded as supernatural, and, consequently, not as a miracle.

An apparent miracle may be defined an extraordinary, and, as far as the knowledge of those who witness it for the first time extends,

an unprecedented event; but when it is carefully examined, it can be explained upon ordinary physical principles, and, if not a natural event, it may be performed by any one who is in possession of the method of working it.

The first attempt, which succeeded, to attract lightning from the clouds, when witnessed by those ignorant of the method of effecting it, was proclaimed as a miracle, and consistently regarded as such by the ignorant multitude. Nothing, indeed, could be better calculated to subdue and enchain their minds in the bondage of superstition; but, since the principles upon which the phenomenon depends are well understood, it has ceased to be regarded as miraculous, and is classed among the other remarkable discoveries of physical science. Many of the astounding phenomena of initiation into the mysteries of the temples, and those intended to be considered as supernatural when displayed before the people in ancient times, and even, *proh pudor!* some in our own times, especially in the legends and the rituals of the Church of Rome, are readily explained upon physical principles, and may be confidently classed as sacred frauds. Nothing can be more unworthy of the Church who sends them forth. Well may the scoffer at religion exclaim, does the honor and the worship of the Deity require for its advancement the aid of falsehood and imposture!

Such is my opinion of the distinction between real and apparent miracles. With reference to the former, the Supreme Being may will, as he possesses the power, to perform every thing, at any time, that is truly miraculous, and we can

always trace the intention to some gracious purpose. But, however closely the ingenuity of man may imitate real miracles, and however the results of his operations may appear miraculous, yet, when they are examined, they can be referred, as I have already said, to physical causes; and their influence is found not to be directed to the beneficent and gracious ends which follow, as a regular sequence, every real miracle. The apparent miracle is worked, not for an act worthy of the Divinity, but to elevate the dignity of certain individuals, or to augment the consequence of particular classes of men in the eyes of the ignorant, or to forward some other object not extending to general good, but confined in its influence to comparatively narrow limits; namely, to satisfy ambition and the love of power.

To affirm positively that an event which is consonant with the ordinary powers of nature is the immediate result of the intervention of Divine agency, displays an arrogant assumption of superior wisdom, and of such an acquaintance with all the tendencies of the operations of the works of nature as to pronounce them inadequate, and must consequently lead to the suspicion of imposture; but to presume to imitate the awful phenomena of nature, and to pronounce these imitations the result of supernatural agency, deserves no other appellation than that of actual imposture. Such attempts, for the purposes of ambition, and for the promotion of sacerdotal control over the minds of the mass of mankind, are those which our author has endeavored to expose; and, when

he has confined himself to these alone, his object has been accomplished.

With respect to another description of pretended miracles in our own times, namely, those which occupied the public mind in 1820, during the career of Prince Hohenlohe, who assumed to himself the miraculous gift of healing; and also some cures which were alleged to have been obtained through prayer, and published in a periodical called the "Morning Watch," in 1830: these appear not to have been known to our author. They are only mentioned here to show that credulity and superstition belong to no particular age; and to demonstrate the powerful influence of confidence in bestowing tone and energy upon the human frame, after long-continued chronic diseases have worn themselves out, and have left the individual in a state of debility which only requires the action of some powerful excitement to set the machine again in action.

"Of all moral agents," says Mr. Travers, in a letter relative to the cure of a Miss Fancourt of a spine complaint, in answer to the prayer of a Mr. Greaves, "I conceive that faith which is inspired by a religious creed to be the most powerful; and Miss Fancourt's case, there can be no doubt, was one of many instances of sudden recovery from a passive form of nervous ailment, brought about by the powerful excitement of this extraordinary stimulus, compared to which, in her predisposed frame of mind, ammonia and quinia would have been mere trifling." On the same principles may be justly ascribed the cure of Miss Martineau, so confi-

dently ascribed by that highly-talented lady to the influence of mesmerism. It is a melancholy reflection that, in so advanced a period of civilization as that above named, dupes should be found to believe, or self-constituted miracle-workers presume, to operate upon the credulity of mankind.

The ascribing of such events to the intercession of the sanctified dead, or to the prayers of the living, or to the particular intervention of the Deity called forth by them, can be neither justified by sound reason nor approved by true religion. The cures really accomplished can be explained by the operation of adequate natural causes, and, consequently, require no miraculous interposition. It may be argued that the estimony of credible witnesses may be adduced in support of such apparent miracles; but, before admitting such testimony, we must take into account the condition of mind of the witnesses; for, when there is a tendency in the mind, either from its original structure, or from the nurture of improper education, to believe in miraculous events, a spirit of self-deception is practiced, and appearances are adopted as truths, without the smallest feeling of doubt, and assuredly without any attempt to estimate their degree of probability. Under such circumstances, the respectability of the witnesses does not enhance the value of the testimony if, after weighing all the probabilities, we are satisfied that they concur against the truth of the event having really happened. Do not, we may inquire, the strongest minds sometimes, in such cases, demonstrate that the most perfect specimens of human intellect, like the sun, have their

spots, since we find the immortal Newton himself paying the penalty to mortal weakness on the subject of prophetical interpretations? Selden, in his apology for the law against witches, displayed a lurking belief in witchcraft; and both Sir Thomas Brown and Sir Matthew Hale were believers in that absurd infatuation. Indeed, the extraordinary extent to which the belief in witchcraft existed during the twelfth and thirteenth centuries in the north of Europe, and in Great Britain, is almost incredible. Like the spectres which it was supposed to invoke, it vanished before the light which experimental science threw upon those events, natural or artificial, that were previously considered to depend on supernatural interposition.

On that portion of his subject which treats of Magic, and its modifications, sorcery and witchcraft, our author has displayed much research; but he has scarcely noticed the opinion which at one time very generally prevailed, and which still forms part of the Roman Catholic faith, that every man at his nativity has a good and a bad angel assigned to him. This belief was probably a remnant of that part of the doctrine of Zoroaster, which describes the Supreme Being as assigning, at the creation, the government of the world to two principles, one of good, and the other of evil; which originated the pagan doctrine of the agency of good and evil genii, to which also the Grecian philosophers were addicted.

This belief seems to have prevailed even in the time of Shakspeare, who refers to it in several of his dramas, and especially in the following passage:

"Thy demon, that's thy spirit which keeps thee, is
Noble, courageous, high, untamable
When Cæsar's is not; but, near him, thy angel
Becomes a Fear, as being overpowered—
I say again, thy spirit
Is all abroad to govern thee near him;
But be aware, 'tis noble."*

It is not my intention, as it would be out of place here, to comment upon this subject, although one of considerable interest, and still entertained by several good and pious individuals, who ascribe all evil thoughts and temptations to the immediate instigation of the devil. It is also a curious fact that the act of suicide, which too frequently is the consequence of insanity, is often caused by the illusion of a voice constantly whispering in the ear of the unfortunate individual, and urging the committal of the crime.

On the subject of prodigies and visions, our author is not so copious as the title of his work would lead the reader to anticipate: those

"Signs,
Abortions, presages, and tongues of heaven,"

that, in spite of the rapid advancement and extension of knowledge, so characteristic of the present period, still press like an incubus upon the minds of many persons, and a total freedom from which can be conscientiously boasted of only by a few. In confirmation of this assertion, it is not necessary that I should prove a belief in spectral appearances, although there are spectral illusions occurring when the nervous system is deranged in any one laboring under febrile disease, or in a healthy person exhausted with long and anxious watching by the bed of sickness, which might be regarded as predictive of death; nor is it requisite that I should

* *Antony and Cleopatra,* act vii., scene 3.

refer to the belief in screams and fearful noises heard at the dead of night; corpse candles, nor tomb fires; nor those alterations in the burning of lights which a guilty conscience fancies may take place at midnight, and which are omens of some approaching disaster, the merited punishment of crime.

> "The lights burn blue: it is now dead midnight.
> Cold fearful drops stand on my trembling flesh.
> Methought the souls of all that I had murder'd
> Came to my tent."*

But, independent of any belief in these visions—these aerial simulacra—there are certain feelings of the mind which seem to indicate disaster, and which to a certain degree influence more or less the belief of every man.

Much might be said upon the *Second Sight*, a property of recognizing "the coming events which cast their shadow before," and which is still believed to be possessed by some persons in the remote parts of the Highlands of Scotland. The second sight is a species of divination; a gift of prophecy, or of prediction from visions. One writer on the Highlands, a man of genius and high acquirements, Doctor Macculloch, treats the whole as a fanciful romance; a mere specimen of superstition in the believers, and of impudent assumption of a possession which never existed only in the declaration of the seers, and the trick of which, in truth, might be acquired by any one in the Island of Sky for a mere trifle. The object seen by the mountain seer is often a close resemblance of himself, at whatever period of life he may be; and upon this fact, believing that the object is really seen, I have attempted an explanation in a note upon

* *Richard III.*, act v., scene 3.

it. How far I have succeeded I leave to the judgment of the reader. Certain conditions of the nervous system, also, especially hypochondriacal affections, cause spectral illusions, which the patient in some degree believes to be real. My explanation, however, refers to those visions only that are seen of the seers themselves; not to those which display the whole machinery of the predicted event, whether disastrous or joyful. In this respect I am inclined to think, with Dr. Macculloch, that the honesty of the seers may be placed on a parallel with that of the Delphian Pythoness; and it is of little consequence what the cause of the excitement is, whether whisky, or carbonic acid gas.

In the exercise of the second sight, the predictions have been usually accomplished before the seer has published his anticipatory knowledge; hence the facility with which predictions may be at any time announced. The wonder is that the impudent assertions of their being known beforehand should find believers; it can only be affirmed that the credulity balances the imposture. Absurd as these facts show this assumed gift of divination to have been, the belief in it was at one time universal; but it is now, happily, on the wane, and practiced only in the remote Hebrides. If at any period those predictive visions really occurred, they must be viewed only as reveries, the sports of mental association in a state between sleeping and waking.

With respect to other omens, they are nearly the same over all the world, as well as in the Highlands. "A spark of fire," says Dr. Macculloch, in treating of Sky, "falling on the breast or arms of a woman, was the omen of a dead

child. Certain sounds were the omens of death;" and these are certainly not confined to Sky; we find them prevailing among the uneducated classes even in England, and, what is more remarkable, among some whose education should have placed them above lending an ear of credence to such absurdities. Many of these forebodings attract the attention of the individuals merely from that listless, dozing condition which is the result of want of occupation. The vision is, in truth, the recollection of something that has previously occurred, which begins a series of associations, or false ideas, that impress and keep their hold of the imagination in hours between sleeping and watchfulness.

It might be supposed that the seers could not believe, and that, like the augurs of old, who laughed in each others faces when they met, the seers, also, must have felt strange emotions on encountering one another; but this idea does not always hold. How many confessions of witchcraft were made at the time when that delusion enchained the human mind in its bondage may be seen in the pages of our author. These confessions may be regarded as a species of insanity, especially when those who uttered them were carried to the stake, or were suffering under the most horrific tortures of breaking on the wheel. The argument in favor of witchcraft resting on evidence is valid for every absurdity detailed of it; but it is almost degrading to condescend to prove the small value of human testimony upon numerous points, when we see men of every rank and denomination deceiving their eyesight, and believing that they have seen what never existed. Instances of

this extraordinary fact are abundantly scattered through the following volumes; and it has been well remarked, that "when once the minds of a people are prepared with a solution for every event, there will never be wanting events adapted to the situation."*

With regard to the predictions of the temples, I am of opinion that our author ascribes too much knowledge to the priesthood. In their own operations, there is no reason why their predictions should not be fulfilled; but, in the series of natural events, where all things are so mingled together, and the untwining of the complication so much beyond our power, that to predict the manner and the particular moment in which the anticipated effect will take place can not be supposed possible. Long experience, and the constant observation of natural events, may do much in enabling truth to be approximated under such circumstances; but even these aids are not adequate to insure its full attainment.

To suppose, however, that the fulfillment of a prediction of a supernatural character can depend, in any degree, on the interposition of the individual who has hazarded it, must be regarded as absurd, and as resting upon the same ground as the belief in witchcraft; the stories of men without heads, described by St. Augustine as having been seen by himself; or the satyrs of St. Jerome;† mermaids; the *clairvoyance* of mesmerizers; the cures of Prince Hohenlohe, performed at two thousand miles from the patient; or those fictitious ones now enslaving the

* Macculloch's Highlands and Western Islands, &c., vol. ii., p. 86.

† St. Jerome averred that there were actual satyrs, men with goats' legs and tails, exhibited at Alexandria; and that one was pickled and sent in a cask to Constantine.

minds of many whose rank in life and education should have prevented them from becoming the dupes of so silly an imposture—I refer to the gift of healing possessed by a young French woman, Mademoiselle Julie, now in the British metropolis. She professes to judge of diseases, when placed in the mesmeric slumber, by feeling a few hairs from the head of the sick person, who is not required to be present, and prescribing for them; a most impudent imposture, which has been justly exposed by Dr. John Forbes.*

A considerable portion of these volumes is occupied in tracing many of the extraordinary apparent miracles of antiquity to mechanical and scientific sources; but the knowledge of the erudite author is not very profound on this part of his subject; and here I trust my notes shall be found to illustrate his remarks, as well as to clear up many obscure passages; to explain processes which seem to have been little known to him; and to correct errors into which he has been led from being only superficially acquainted with the subject. I have also added many brief biographical notices of the principal individuals mentioned in the text, chiefly for the sake of the general English reader, whose moderate acquaintance with classical antiquity may require such an aid. It is not for me to say how much the notes may be thought to add to the value of the work; they have been written with the intention of rendering the whole subject better understood. I contemplated adding to the Illustrations at the conclusion of the second volume an Essay on Credulity in Medicine, tracing it to its course, and giving an ex-

* See British and Foreign Medical Review.

position of the various successful efforts of charlatanism which have at various times imposed upon the understanding of mankind, and contributed to the stability of the empire of superstition. But on looking over my materials for such a dissertation, collected during many years, I was convinced that the subject could not be embraced within any reasonable compass to serve as an appendage to these volumes; I have therefore determined to lay it, at some future time, before the public as a distinct work.

In conclusion, I have no hesitation in declaring my opinion that M. Salverte has performed a beneficial service to mankind in throwing open the gates of the ancient sanctuaries. The benefit would have been enhanced had he extended his researches from the fallacies of polytheism to the pious frauds which disfigure the middle age of the Christian world; "and from which," to borrow the language of Paley, "Christianity has suffered more injury than from all other causes put together;" another proof, were it required, that Credulity and Superstition belong to no particular age nor country. Their labors constitute a large portion of the history of the human race, which may be regarded as little more than a record of the follies and vices of man, rather than a display of his virtues and intellectual energies. Whatever may be our religious faith, we drink in, almost with our mother's milk, an admiration of classic antiquity; and from the influence of early education we are insensibly led to give some degree of credence to its mythology. One beneficial effect, however, it must be confessed, results from tracing conditions; name-

ly, the tendency which they have, in many important particulars, to confirm the truths of the Bible. Whether disgraced by the cruel and remorseless absurdities that deform the Hindoo rites, or emerging from the frowning darkness that shrouded Egyptian mysticism, or concealed by the graceful drapery which decorated Grecian polytheism, we may discover in all of them nearly the same account of the infant condition of the world, the creation of the human race, and the catastrophe of the deluge; thence a confirmation of the cosmogony of the book of Genesis. The Hindoos, for example, divide the creation into six successive periods, the last of which terminates with the formation of man; and in the Purana, amid the wildest allegories and most fanciful exuberance of machinery, we discover evident traces of the universal flood, and the preservation of one family destined to renew and to continue the human race. Among the Parsees, the followers of Zoroaster, the belief in one Supreme Being, and of a good and an evil principle, constitutes their primitive faith, the superstitions now mingled with the fire-worship having originated in the ambition of the priesthood for power rather than in the tenets of its original founder. The sun of Christianity has dispersed the darkness of paganism; and, as knowledge extends sufficiently to dissipate the divisions introduced, unhappily, into the Christian churches, the blessings that result more and more from its influence will afford only additional evidence of its divine origin. A. T. T.

30 Welbeck-street, June, 1846.

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THE PHILOSOPHY

OF

MAGIC, PRODIGIES,

AND

APPARENT MIRACLES.

CHAPTER I.

Man is Credulous because he is naturally Sincere.—Men of superior Intellect have reduced their Fellow-men to Submission by acting upon their Passions through their Credulity.—The Recitals of Marvels which conduced to this End are not wholly inventive.—It is useful as well as curious to study the Facts contained in these Narrations, and their Causes.

Man is credulous from the cradle to the grave; yet this disposition, the consequences of which plunge him into many errors and misfortunes, proceeds from an honorable principle. Naturally sincere, he is desirous of making his words as correct an expression of his feelings, thoughts, and recollections, as his tears and exclamations of grief, and of joy, and, above all, his looks, and the changes of his countenance, are of his sufferings, his fears, or his pleasures. Speech is more frequently deceptive than silent gesticulations, since it has a greater affinity to art than nature; yet, such is the strength of that inclination which attracts us to truth, that the man the most habituated to deceit is the most disposed to believe that others respect truth; and, before refusing his credit to the statements of others, he must detect something in them which does not accord with his previous knowledge;

or he must have some cause to suspect a design formed to deceive him.

Novelty, and the difficulty of reconciling anomalies with experience, will never startle the faith of an uneducated man. There are, moreover, some impressions which all men are inclined to adopt without investigation; and the very singularity of these is, perhaps, a charm which causes them to be received with more delight. Is this taste, we may inquire, natural? or is it the result of that education which for so many ages the human race has received from its founders? This is a vast and an unexplored field of inquiry; but it forms no part of our subject. It is sufficient to observe that the love of the marvelous, and the preference ever given to the extraordinary over the natural, have been the cause why facts have been not only too much disregarded, but sometimes altogether set aside. There are instances, nevertheless, and we shall bring forward several, where the simple truth has escaped the power of oblivion.

The man of a confiding disposition may be frequently deceived; still his credulity will not be found an instrument sufficiently powerful to govern his whole existence. The marvelous excites but a transient admiration. In 1798, our countrymen observed with surprise how little the sight of balloons affected the indolent Egyptians. Savages behold Europeans execute feats of skill, and perform physical experiments that they are neither able nor desirous to explain; the exhibition amuses without exciting them, and without invading their tranquil independence.

Man is governed by his passions, and, above all, by Hope and Fear. What is better able to create, maintain, and exalt these feelings than unrestrained credulity? Reason is perplexed, and the imagina-

tion filled with wonders. It is easy to believe in supernatural events; we are apt to discern benefits and punishments in them, and to read in them also the mandates and threats of all-powerful beings, whose direful hands hold the destinies of frail mortals.

From the most ancient times, men of superior intellect, desirous of enthralling the human mind, have adduced miracles and prodigies as the certain proof of their missions, and as the inimitable works of the divinities whom they revered. Seized with terror, the multitude have bent beneath the yoke of superstition, and the proudest man has touched the steps of the altar with his humbled brow.

Ages have passed away, consoled and terrified by turns: sometimes governed by just laws, more frequently subject to capricious and ferocious tyrants, the human race has believed and obeyed: The history of every country and of all ages is encumbered with marvelous tales; but, in the present day, we reject them with a disdain not very philosophical. Do not the convictions which have exercised so powerful an influence on the human race merit a high interest? Shall we forget that supreme power of Providence, visible, we believe, in prodigies and miracles, has been almost always the most powerful means of civilization; that the wisest men have doubted whether it were possible for laws, or for durable institutions to exist without the guarantee of an intervention so universally respected?*

If we consider these facts in connection with their causes, the contempt for them has still less foundation, and the origin of fables, which we often deem revolting, merits, perhaps, an honorable place in the history of mankind. Statements, however

* J. J. Rousseau, *Du Contrat Social;* liv. iv., c. viii.

incredible they may seem, can not all be falsehood and illusion. Credulity and invention have alike their limits. Let us study man, not from deceitful traditions, but in his ordinary habits of life, and we shall see that it would be difficult for an imposture to become established if, in our feelings and recollections, we find nothing to second its pretensions, nothing to support them. We recur again to our inquiry: Man is credulous because he is naturally sincere. A falsehood can more easily deny, disguise, and set aside truth than imitate it.*

Invention, even in trifles, costs some effort of which the inventor is not always capable. An inventive genius, also, when exercised for our pleasure or for our instruction, yields at every step to the desire of approaching reality; of mingling truth with its creations; convinced that without this artifice falsehood would find little place in the human mind. With still more reason does the man who has some great interest in practicing upon our credulity, rarely revert to a fable which has not for its foundation some fact, or the possibility of which is not at least probable. This skillful attempt appears in referring to distant ages and countries, and to those repetitions with which the histories of prodigies abound, and which so imperfectly disguise the alteration of some of the details. This will be obvious if we can convince our readers that the greater part of marvelous facts may be explained by a small number of causes more or less easy to discern and to develop.

An inquiry into these causes has not for its object merely the gratification of idle curiosity. Prodigies connected with natural phenomena, inventions,

* It is with difficulty we can imagine any thing full of improbability; and we say "a fact of this nature is rarely forged."—St. Croix, *Examen Critique des Historiens d'Alexandre.* Paris, 1804, p. 29.

impostures, the sorcery of *thaumaturgy** can, for the most part, be explained by physical science. Viewed in this light, the history of science, its progress, and its variations, may furnish valuable ideas respecting the antiquity, the changes, and vicissitudes of civilization; and we may thence draw some curious evidence regarding the sources of part of our knowledge hitherto unsuspected.

Finally, another advantage will reward our researches: history will be presented to us in a new light. We shall restore to it facts; give back to historians a character for veracity, without which the whole of the past would be lost to the annals of civilized man; for, convicted of falsehood and ignorance in their narrations, and of a constant repetition of marvelous events, what credit would they merit in their accounts even of the most probable occurrences? Justly denounced as an amalgamation of truth and error, and devoid of interest moral or political. History would be regarded only as an admitted fiction: and has it not been so designated by the learned? But a man who has described and studied the manners of his species is not reduced to the degradation of preserving only the fables in those records which are supposed to give an insight into past ages. Far from presenting merely a collection of falsehoods and folly, the most marvelous or incredible pages of history open to us the archives of a learned and mysterious policy, which some wise men in every age have employed to govern the human race; to lead it to misfortune or to happiness; to greatness or to degradation; to slavery or to freedom.

* From two Greek words, signifying a worker of wonders.

CHAPTER II.

Difference between Miracles and Prodigies.—Circumstances that render marvelous Histories credible: 1st. The Number and Agreement of the Narrations, and the Confidence which the Observers and Witnesses of them merit; 2d. The Possibility of tracing out some one or other of the principal Causes that may have given a miraculous Coloring to a natural Event.

The dominion of the marvelous may be divided into two parts: that of prodigies, and that of magical works.

Independent of all human action, prodigies are singular events that nature produces, apparently deviating from those laws which invariably regulate her operations.

Every thing is a prodigy in the eyes of the ignorant man, who sees the universe only in the narrow circle of his existence. The philosopher beholds no prodigies: he knows that a monstrous birth, or the sudden crumbling of the hardest rock, result from causes as natural as the alternate return of night and day.*

Those prodigies, once so powerfully acting upon the fears, desires, and resolutions of mankind, awaken in the present day only incredulity, and excite the investigation of the learned. In the infancy of

* Our author's assertion in this paragraph is too general. Prodigies are undoubtedly, traceable to natural causes; but not to these in their regular and ordinary operation; on the contrary, they are truly attributable to decided deviations from it. In a monstrous birth the same organic force and formative power are exerted in the development of the germ as in ordinary cases; but, in the progress of the development, something occurs to interrupt the action of the organizing principle, and a monster is the result. The formative power is a creative faculty, stamped upon organic matter by the Deity, which modifies it, but operates "blindly and unconsciously, according to the laws of adaptation."*—Ed.

* *Müller's Physiology, trans.*, vol. i., p. 25.

society, men possessed themselves of rare facts, and of all real or apparent wonders, in order to hold them up to the eyes of the vulgar as signs of the anger, the threats, promises, or the benevolence of the gods.

Miracles and marvelous events, equally in connection with supernatural influence, are often wonders worked by men, whether they pretend that a benevolent or a terrible Divinity employs them as instruments; or whether, by the study of the *transcendental sciences*, they assume that they have subjected to their empire spirits endowed with some power over the phenomena of the visible world.

Every miracle impresses a religious man with a sense of veneration; at the same time, he bestows this name on those supernatural operations only that are consecrated by his belief. We shall, therefore, apply the name *magic* to the *art* of working wonders; and in so doing, we shall digress from received opinions, and recall the ancient ideas of faith.

In the absence of religious revelation to regulate the thoughts, what proof of credibility, we may inquire, would be sufficient to make the thinking mind admit the existence of prodigies and marvelous events?

The calculation of the probabilities will serve as a guide.

It appears to a superficial view much more probable that a man should be deceived by appearances more or less specious, or that, having some interest to deceive, he should himself endeavor to impose, than that there should be perfect agreement in a relation which involves something miraculous. But if, in different times and places, many men should have seen the same thing, and if their recitals agree among themselves, then the case is altered.

That which seemed incredible to the wise, and miraculous to the vulgar, becomes a curious but undeniable fact: the vulgar are amused by it; the learned study it, and endeavor to develop its cause.

A single question remains then to be resolved in order to form a just estimate of the past. Must we admit that men have imprudently uttered and recorded falsehoods, and have found other men, in all times, ready to believe absurdities? Is it not more rational to conclude that those recitals, in appearance marvelous, are founded on reality, particularly when they can be explained sometimes by the human passions, occasionally by the state of science in former times?

I shall fearlessly cite those witnesses hitherto regarded with suspicion, although they have narrated events that have been reputed impossible. The discredit into which they have fallen makes part of our argument, which goes to show that discredit can not be justly opposed to their narrations.

Is it credible, I may ask, that, in the year A.D. 197, a shower of quicksilver could have fallen in the Forum of Augustus at Rome?

Dion Cassius,* who relates the event, did not see it fall, but he observed it immediately after its descent: he collected some of the drops, and rubbed them upon a piece of copper in order to give to it the appearance of silver, which he affirms it preserved for three entire days.† Glycas also speaks

* Dion Cassius Cocceianus, the son of Cassius Apronianus, a Roman senator, was born at Nicæa, in Bithynia, A.D. 155. Although he was on his mother's side of Greek descent, and wrote in the language of his native province, yet he was truly a Roman, and enjoyed the rank of a senator under Commodus. He also held several important official situations under Alexander Severus. His History of Rome, from the period of Augustus to his own age, is justly esteemed.—Ed.

† "*Cœlo sereno pluvia rori simillima, colorisque argentei, in forum Augusti defluxit, quam ego, et si non vidi cum caderet, tamen*

of a shower of quicksilver, which fell in the reign of Aurelian.* But the authority of this annalist is weak, and there is reason to believe that he has only disfigured the account of Dion by an anachronism. The rarity and value of mercury at Rome, in both reigns, set aside the possibility that the quantity necessary to represent rain could have been thrown by any one into the Forum. This story is, indeed, too strange to be believed in the present day. Must it then be absolutely rejected? Any one may say, it is impossible, it never could occur; but to whom does it belong to determine the limits of possibility, those limits which science is extending every day under our own eyes? Let us examine, let us doubt, but let us not be too hasty in denying the possibility of such an occurrence.†

If a similar prodigy had been related at different times by different writers; if it had been renewed in our own times, beneath the eyes of experienced observers, it would no longer be regarded as a fable or an illusion, but as a phenomenon which would have a place in those records to which science con-

ut eeciderat, inveni; eaque, ita ut si esset argentum, oblivi monetam exære, mansitque is color tres dies; quarto vero die quidquid oblitum fuerat evanuit."—Xiphilinus, *in Severo.*

* "*Aureliano imperante argenti guttas decidisse sunt qui tradant.*"—(Glycas., *Annal.*, lib. iii.) Little is known about this author. He wrote a Chronicle of events from the Creation to the year A.D. 1118. It has been valued on account of its Biblical references.—Ed.

† There are many reasons for disbelieving the account of Dion. In the first place, he did not see the shower fall; he gives no idea of the quantity of the quicksilver precipitated, and he collected only some drops; but, as the metal fell in a shower, and as it would not sink into the ground, nor evaporate like water, the quantity must have been too considerable to require it to be collected in drops. In the second place, metallic mercury is rarely found any where in large quantity; and it must have been elevated into the atmosphere in the form of vapor, and condensed there, before it could descend in a shower. The story is altogether unworthy of credit.—Ed.

signs facts which she has recognized as certain without being able to explain them.

We at one time regarded as fables all that the ancients recorded respecting the falling of stones from the sky. In the commencement of the nineteenth century, the most distinguished of the French philosophers rejected, with some degree of harshness, the relation of a shower of aerolites; but, a few days afterward, they were forced to acknowledge its truth; and the narration has been verified by the frequent repetition of this phenomenon.*

On the 27th of May, 1819, a violent hail storm devastated the country of Grignoncourt.† The mayor of the place had some of the hailstones col-

* Although the fall of aerolites, or meteoric stones, is not now doubted, yet it does not augment the credibility of the shower of quicksilver related by Dion; it only shows us how cautious we ought to be in rejecting the accounts of ancient writers, however inconsistent with our experience. The most authentic account of a fall of aerolites is that which describes the phenomenon as it occurred near L'Aigle, in Normandy, in 1803. About one o'clock in the afternoon, the sky being clear, a ball of fire was observed in the atmosphere, in different parts of Normandy, and at the same time loud explosions were heard in the district of L'Aigle. These lasted for five or six minutes, resembling the discharges of cannon and musketry, followed by a long, rolling noise, like that of many drums. The meteor, whence the noise seemed to proceed, was like a small triangular cloud, which remained stationary; but vapor seemed to issue from it after each explosion. Throughout the whole district a hissing noise, like that caused by stones thrown from a sling, was heard, and a great number of stones fell to the ground. Above two thousand were collected; they varied in weight from two drachms to seventeen pounds and a half. Aerolites, in whatever part of the world they have fallen, resemble one another in composition, and consist of silica, iron, magnesia, nickel, and sulphur, but in proportions different from those in any stones known on the surface of our globe. Numerous conjectures have been advanced respecting the source of these stones. They have been supposed to be projected from the moon, or from volcanoes, or to be formed in the atmosphere. The most probable theory is that proposed by Chladni, namely, that these meteors are either original, small, solid bodies, or fragments separated from larger masses moving in space round the earth in eccentric orbits, and containing, according to Sir H. Davy, combustible or elastic matter.—Ed.

† Neufchâteau, in the department of the Vosges.

lected; they weighed upward of a pound avoirdupois; and when they were dissolved, he found in the center of each a stone of a clear coffee color, from about six to eight tenths of an inch in thickness; flat, round, polished, and with a hole in the center, into which the little finger could be inserted.* Such stones had never been observed before in the country; they were seen scattered upon the ground wherever the hail had fallen. I read the account of the phenomenon in a memorial *(procès verbal)* addressed to the sub-prefect of Neufchâteau by the mayor, who, *viva voce*, related the same details to me, and the clergyman of the parish confirmed the account. It might be said that the tempest, and violent fall of the hail, had forced up to the surface stones previously buried in the earth. The personal observation of the mayor, however, refutes this hypothesis. Curious to know the truth, I examined the soil at the time where the plow opened it more deeply than the hail could possibly have done, and I could not discover a single stone similar to those that the mayor described in his narration.†

Shall we reject a fact attested in so precise a manner? In Russia, in 1825, a fall of hailstones, in which were inclosed meteoric stones, took place.

* Upon the banks of the Ognon, a river flowing about ten leagues from Grignoncourt, a great quantity of similar stones was found. Could they also be the product of a hail storm charged with aerolites?

† It is not likely that he could discover any; for although the fall of aerolites be true, yet the improbability of the stones being such as stated is evident. The story is thus justly criticised in the North British Review, vol. iii., p. 7: "The phenomenon," says the critic, "was never seen in any other place, and the enveloped stone was not a substance known to have a separate existence like quicksilver. A great quantity of circular, perforated disks, of a polished and transparent mineral, could only have come from a jeweler's shop in the moon, consigned to another jeweler in the atmosphere, who set them in ice for the benefit of the Mayor of Grignoncourt."—Ed.

The stones were sent to the Academy at St. Petersburgh.* On the 4th of July, 1833, in the district of Tobolsk, enormous hailstones were seen to fall simultaneously with cubical aerolites. Macrisius relates that, in the year 723 of the Hegira, an enormous hail shower fell, the stones of which weighed from one to thirty rotts.†

With what disdain, what ridicule should we treat an ancient author, if he told us that a woman had a breast on her left thigh, with which she nourished her own and several other children; yet this phenomenon has been vouched for by the Academy of Sciences at Paris.‡ The known correctness of the philosopher who examined it, and the value of the testimonials upon which he rested his veracity, would have been sufficient to have placed the matter beyond a doubt.§

There is still one cause which diminishes and destroys much of the improbability of marvelous events: it is the facility which one finds in stripping these events of every thing monstrous, such as at first provoked a challenge. In order to effect this, it is always necessary to allow for that spirit of exaggeration peculiar to the human mind. It is ignorance which prepares credulity to receive prodigies and apparent miracles; curiosity excites,

* Chemical analysis gave the composition of these stones: 70 per cent. of red oxyd of iron; 7.50 manganese; 7.50 silex; 6.25 micaceous earth; 3.75 argil; 6 sulphur.—*Bulletin Universel des Sciences*, 1825, tome iii., p. 117, No. 137; 1826, tome viii., p. 343.

† Kitab-at-Solouk, quoted by M. Et. Quatremère.—*Mémoires sur l'Egypte*, vol. ii., p. 489–490.

‡ Séance du 25 Juin, 1827.—See *Revue Encyclopédique*, tome xxxv., p. 244.

§ This was one of those sports of Nature which are not unfrequently seen, and which can not be reasoned upon. As it may be a solitary instance of the kind, there might have been, indeed, and properly, much doubt respecting the credibility of the narrative mentioning it, had the phenomenon not been seen, and the nature of it investigated, by those well qualified for the task.—Ed.

pride interests, the love of the marvelous misleads, anticipation carries us on, fear subdues, and enthusiasm intoxicates us; while chance, that is to say, a succession of events, the connection of which we do not perceive, and which also permits us to attribute effects to erroneous causes, seconding all these agents of error, sports with human credulity.

Apparent miracles have been produced by the science or by the address of able men, who, in order to rule the people, have worked upon their credulity; or, the same individuals have made use of those prodigies which strike the eyes of the vulgar; of those real or apparent miracles, the existence of which is rooted in their minds. Both cases will enter into our discussions. We will develop, also, the progress of a class of men who, founding their empire upon the marvelous, are anxious that it should be recognized in every thing, and as anxious to dupe the stupid multitude, who so easily consent to see the marvelous every where.

We shall narrow, also, the domain of the occult sciences within its true limits; the principal end of our investigations, if we can exactly point out the causes which, with the efforts of Science and the works of Nature, concur in producing apparent miracles; or even in determining the importance, and solving the nature of the prodigies which thaumaturgists employ, prompt to bolster up their real powerlessness by the efforts of their ingenuity.

In this discussion we shall not be afraid of multiplying examples, nor of hearing the reader exclaim, "I know all that!" He, doubtless, may know it; but has he deduced from it the consequences? It is not enough to offer a plausible explanation of some solitary facts; we must collect and compare a considerable mass of them, in order to be able to draw the conclusion that, as in each branch of our

system, our explanations tend to preserve the foundation of truth, and to remove the marvelous from a great number of events, it is extremely probable this system has truth for its foundation, and that there are no facts to which it may not apply.

CHAPTER III.

Enumeration and Discussion of Causes.—Singular and deceptive Appearances of Nature. — Exaggeration of the Details and Duration of Phenomena.—Improper Terms, ill-conceived and badly explained.—Figurative Expressions.—Poetic Style. — Erroneous Explanations of Emblematic Representations. — Allegories and Fables adopted as real Facts.

So great is the charm attached to any thing of an extraordinary nature, that the man whose mind is but little enlightened regrets when his dreams of the marvelous are dispelled by truth, and is vexed when forced to confess that the slightest unusual appearances are, in his eyes, capable of transforming the immovable objects of nature into living or moving beings. This charm, and the tendency to exaggeration, which is a consequence of it; the permanence of those traditions which would recall events as still existing that have ceased for ages; the singular pride which nations have in transferring into their own history the fabulous and allegorical traditions received from some race preceding them; incorrect expressions; the still more inaccurate translations of ancient narratives; the energy peculiar to the languages of antiquity, and the figurative style essentially belonging to poetry; that is to say, to the first language in which the knowledge of the past was impressed on the memory of the people; the desire natural to a half-civilized community to explain allegories and emblems, the meaning of which was known only to the learned;

that interest which leads both noble and base passions to make use of the marvelous in acting upon the credulity of the present and the future: all conduce to deception, and are the causes which, separately or collectively, have debased the records of history with an immense number of marvelous fictions, although these repositories of knowledge have not required their powerful aid.*

In order to disencumber truth from the mantle of the marvelous, it will be found sufficient to place by the side of the pretended wonders a similar fact not yet employed by Superstition in support of her assertions, and then to separate from the accessories attached to it some one of those causes, the influence of which we have just noticed.

The ringing of the bells at Rheims had the effect of shaking one of the pillars in the Church of St. Nicasius,† and giving to that heavy mass a vibration which continued for some minutes. A minaret of brick, near Damietta, also received a very apparent movement from the pushing of a single man placed near its summit.‡ These accidents, which were certainly neither foreseen nor intended by the architects, would, in the hands of a wonder-worker, become the act of some divinity. The Mosque of Jethro, at Hhuleh,§ is renowned for its trembling

* One of these fictions, the production, duration, and universality of which belong to the union of these different causes, appears to us worthy of a separate notice.—See Appendix, note A, *on Dragons and monstrous Serpents, which have figured in a great number of historical and fabulous recitals.*

† He was the ninth Bishop of Rheims. He was killed in the sacking of that city by the Vandals, in 407.—(*Stilting's Life of St. Viventius*).—Ed.

‡ Macrisius, quoted by E. Quatremère, *Mémoires sur l'Egypte*, tome i., p. 340.

§ Hhuleh, or Halleh, a town situated on the Euphrates, in the pashalic of Bagdad. In 1741, the traveler, A'bdoul Kerym (*Voyage de l'Inde à la Mekke, Paris*, 1757), witnessed this miracle. He tried in vain to accomplish it himself, but he had not the secret of the priest.

minaret. The officiating priest places his hands on the ball at its summit, and invokes Ali; at this sacred name the minaret trembles, and the movement is so violent as to cause the curious, who are mounted on its summit, to dread being precipitated below.

Many of the metamorphoses, and of the wonders consecrated in the history, or embellished by the poetry of the Greeks and Latins, are no more than the historical translations of some particular names of men, nations, or places;* and they might be easily explained if, instead of saying that the recollection of the miracle had given origin to the name of the town, the man, the people, or the country, we should say, on the contrary, that the name had originated the miracle. We have confirmed this remark in another place, and have, at the same time, pointed out the origin of these significant names.

If the adoption of narrations evidently of fabulous origin proceeds from a love of the marvelous, how much more readily will this disposition lead us to contemplate with astonishment some of the sports of Nature, such as the appearances of rivers flowing in waves of blood, or the resemblance of rocks to men, animals, or ships?

Memnon fell beneath the blows of Achilles;† the gods collected the drops of his blood, and formed of them that river which flows through the valley of the Ida.‡ Upon every anniversary of that fatal day, when the son of Aurora fell a victim to his courage, the waters of that river assume the color of the blood from which their origin was derived.

* *Essai Historique et Politique sur les Noms d'Hommes, de Peuples, et de Lieux*, par Eugène Salverte, passim.

† Q. Calaber, *Prætermiss. ab Homer*, lib. ii.

‡ *Traité de la Déesse de Syrie* (Œuvres de Lucien), tome v, p. 143.

In this, as in a thousand other instances, the Greek tradition is copied from one still more ancient. From Mount Libanus flows the River Adonis; at the same period of every year it assumes a deep red tint, and rolls in bloody-looking torrents to the sea. It is the blood of Adonis; and the prodigy indicates the period proper for commencing the mourning ceremonies in honor of this demi-god. An inhabitant of Byblos explained the phenomenon by observing, that the soil of Mount Libanus, where it is watered by the Adonis, is composed of a red earth, and that, in a certain period of the year, the wind, drying up the earth, raises clouds of dust, and carries them into the river.

The water of a lake at Babylon reddens for several days the color of the earth bathed by it, "which suffices," says Athenius, "to explain the phenomenon." Analogous suppositions account for the change of color which the River Ida regularly experiences. During the rainy season, or when the snow is melting, its waters probably reach, and partly dissolve a bank of ochreous earth impregnated with sulphate of iron, the presence of which is detected by the unwholesome vapors emitted from the stream. The miraculous appearance is thus reproduced only at a certain period; indeed, on that particular day when the waters of the river acquire their greatest elevation.

In Phrygia, where Diana is said to have rewarded the love of Endymion, is seen from a distance the spot which was the scene of their enjoyment; and we are led to believe that we see a rill of fresh milk, of a dazzling whiteness, flowing near it; but, on approaching the spot, this milky rill disappears, and, at the foot of the mountain, a simple channel* hollowed in the rock is all that is visible; the prod-

* Plin., *Hist. Natur.*, book iv., chap. xii.

igy has disappeared. An optical illusion which dispels itself is sufficient, nevertheless, to perpetuate the belief in the existence of the lactiferous rill.

A rock near the Island of Corfu has the appearance of a ship in sail.* Modern observers have confirmed this resemblance, which also struck the ancients, and which is not a solitary instance. In another hemisphere, near the land of the Arsacides, a rock, named Eddystone, rises from the bosom of the waves, and so closely resembles a ship in sail that French and English navigators have been more than once deceived.†

In the present day we only note these singular objects. In the eyes of the ancient Greeks, the rock near Corfu was the vessel which, having brought Ulysses back to his country, was changed into a rock by Neptune, indignant that the conqueror of his son, Polyphemus, should again see Ithaca and Penelope. We must here observe, that this story is not founded on a poetic fiction only, but perpetuates a pious custom, practiced by ancient navigators, of dedicating to the gods a representation in stone of the vessel which had borne them safely in some perilous voyage. Agamemnon dedicated a vessel of stone to Diana, when this goddess, happily pacified, taught the art of navigation to the warlike ardor of the Greeks. A merchant in Corcyra consecrated to Jupiter a similar representation, which some voyagers, nevertheless, believed to be the ship in which Ulysses returned to his native land.‡

* *Observations sur l'Isle de Corfu, Bibliothèque Universelle*, vol. ii., p. 195.

† Labilladière, *Voyage à la Recherche de la Peyrouse*, 4to, Paris, an viii., tome i., p. 215.

‡ Procopius, *Histoire Mêlée*, chap. xxii. Upon a high hill near the town of Vienna, department of the Iser, is a monument called the Boat of Stone. A vaulted cavern is all now remaining of it. Its name, explained by no local appearance or tradition, must

A rock, which is first descried upon the side of Mount Sipylus, was regarded by the ancients as the unfortunate Niobe, transformed into stone by the anger or the pity of the gods. Q. Calaber notices this metamorphosis, at once admitting and explaining it. "Far off," he exclaims, "is seen the figure of a woman, stifled by sobs and melted in tears; but, on approaching, nothing is visible but a mass of rock detached from the mountain."* "I have seen this Niobe," says Pausanias; "it is a craggy rock, which, when viewed near, bears no resemblance to a woman; but, when seen from a distance, it has the appearance of a female figure, with the head bent down, as if shedding tears."†

Endemic diseases have, in figurative language, been termed the arrows of Apollo and Diana, because their origin was referred to the influence of the sun and the moon upon the atmosphere, or, more properly, to those sudden changes from heat to cold, and dryness to dampness, attendant upon the succession of day and night in a mountainous and wooded country. There is nothing more probable than that one of these diseases, peculiar to the neighborhood of Mount Sipylus, should have carried off the children of a chief before the eyes of their distracted mother. Superstitious man. ever imagining that he sees in misfortune the existence of crime, believed that Niobe, too proud of the prosperity of her numerous family, was justly pun-

have been preserved by some ancient fable. It most probably supported a boat of stone, dedicated to the gods by voyagers escaped from the perils of the Rhone navigation, and who placed it on so elevated a spot that all passengers embarked on the river might see it.

* Q. Calaber, lib. i.

† Pausanias, *Attic,* xxi. On the Calton Hill, at Edinburgh, is a tower erected to the memory of Lord Nelson. The rock on which it stands displays nothing uncommon when viewed near, or at its base; but at a distance, in some positions, it represents a very accurate profile of the head of the hero.—Ed.

ished for having dared to compare her happiness to that of the divinities, whose resentment she experienced; and in the remembrance of this unfortunate mother, as well as observing that the rock resembles a female figure in tears, credulity beholds in it the portrait of Niobe; and all this may, with as much probability, have been a real history, as an allegory intended to show, by a picture of the instability of human prosperity, the folly of presumption. In either case, the priests of Apollo and Diana seconded, if they did not create, the established belief, and delighted to show upon Mount Sipylus this imperishable monument of the vengeance of the gods.

On surfaces of rocks, full of inequalities, are almost always to be found forms which recall to us some familiar object. The eye eager in discovering wonders would easily recognize these impressions as the production of a supernatural power. I will not cite as an instance the impression of the foot of Budda upon the Peak of Adam, at Ceylon, because an attentive observer* has suspected it to be a work of art; and this, probably, is also the case with the print of the foot of Gaudma, three times reproduced in the Burmese Empire, and which is more a hieroglyphic† than a freak of Nature. But in Savoy, not far from Geneva, the credulous peasant shows a block of granite upon which the devil and his mule have left evident traces of their footsteps. Traces, not less deep, upon a rock near Agrigentum, mark the passage of the cattle conducted by Hercules.‡ This hero's foot has left, also, near Tyras, in Scythia, an im-

* Dr. John Davy, who states this as his opinion in a letter to his brother, Sir Humphrey Davy.

† Symes's *Travels in Ava*, vol. ii., p. 61 and 73; and Atlas, plate viii.

‡ Diod. Sic., lib. iv., cap. 6.

pression of two cubits in length;* and upon the banks of the Lake Regillus, the form of a horse's foot, imprinted upon a very hard stone, attests the apparition of *Dioscurus*, who announced in Rome the victory gained by the dictator Posthumus† over the Latins in that place.

Upon the sides of a grotto, near Medina, the Mussulman sees the impression of Mohammed's head; and upon a rock in Palestine that of his camel's foot, as perfectly marked as it could be in the sand.‡ Mount Carmel is honored by preserving the print of Elijah's foot; and that of the foot of Jonas is repeated four times near his tomb, in the neighborhood of Nazareth. Moses, when hid in a cavern, left the impression of his back and arms upon the rock. Near Nazareth the mark of the Virgin Mother's knee is revered by Christian pilgrims; also, the impressions of the feet and elbows of our Savior upon a rock rising from the middle of the Brook Cedron, and that of his foot in the identical place from which we are assurred he quitted earth to ascend to his heavenly abode. The stone upon which the body of St. Catharine was laid is said to have softened, and retains the impression of her back.§ Not far from Manfredonia, our admiration is excited by the face of St. Francis‖ in relief, upon the rock of a grotto. Near the dolmen of Mavaux, the villagers exhibit a stone which the mare of St. Jouin struck, and left the impression of her foot, one day when the pious abbé was tormented by the devil.¶ Another dolmen, in the commune of

* Herodot., lib. iv., cap. 82.
† Cicer., *De Nat. Deor.*, lib. iii., cap. 5.
‡ Thévenot, *Voyage au Levant*, p. 300 et 320.
§ Idem, p. 319, 320, 368, 369, 370, 425, and 426.
‖ Swinburne's *Travels*, vol. ii., p. 137.
¶ *Mémoires de la Société des Antiquaires de France*, tome viii., p. 454.

Villemaur,* bears the print of St. Flavy's ten fingers.

Numerous as these instances are (we might relate many more), they fatigue neither faith nor piety; they are adopted and revered; and, notwithstanding the falsehood of the stories, they are believed in most countries.†

At a little distance from Cairo, the impression of Mohammed's feet is exposed to the veneration of the faithful.‡ The Mountain of the Hand, on the eastern bank of the Nile, is so named from being supposed to bear the impression of the hand of Christ.§ At the north of the town of Kano, in Soudan, there is a rock which presents to the zealous Mussulman a gigantic impression of the camel's foot upon which Mohammed ascended to heaven.|| In the Church of St. Radegonde, in Poitiers, is a stone upon which our Savior is said to have impressed the form of his foot;¶ and upon a rock near Vienna the inhabitants of the department of La Charente still recognize the print of St. Madelaine's right foot.**

Near La Devinière, a place to which the memory of Rabelais has given a very different kind of celebrity, is to be seen the impression of a foot resembling that of St. Radegonde:†† so natural is it

* *Mémoires de la Société d'Agriculture du Département de l'Aube.* 1 er trimestre.

† How lamentable is it to reflect that such pretended prodigies, the inventions of bigotry and misdirected enthusiasm, should be regarded as in any degree essential for propagating and supporting a faith which requires nothing but its innate purity to prove its divine origin and to sustain its truth.—Ed.

‡ J. J. Mared, *Contes du Chegh et Mohdy,* tome iii., p. 133.

§ Khalil Dakery, cited by E. Quatremère, *Mémoires sur l'Égypte.*

|| *Travels in Africa,* by Denham, Clapperton, and Oudeney, vol. iii., p. 7, 8, 1832.

¶ *Mem. de la Société des Antiquaires de France,* tome vii., p. 42, 43.

** Ibid.

†† Eloi Johanneau, *Commentaire sur les Œuvres de Rabelais,*

for man to attribute some remarkable prodigy to places which his national vanity, or his religious faith, renders dear to him.

In proof of the opinion that there is a desire to convert natural objects into prodigies, Bethlehem formerly offered a striking example. According to Gregory of Tours, when a person reposed upon the brink of a well, with the head covered up in linen, the star which guided the three Magi was seen to pass from one side of the well to the other, brushing the surface of the water. "But," adds the historian, "it was visible to those pilgrims only who were by their faith worthy of such a favor; that is to say, to men whose minds were so preoccupied by the truth of the tradition as not to per-

t. v., p. 12. Mankind do not always connect religious notions with the extraordinary ideas they adopt when endeavoring to explain some unusual appearance in nature. At the foot of a precipitous rock, near Saverne, are four impressions, well marked, upon the red freestone (freestone of the Vosges). According to a tradition some three or four centuries old, a nobleman pursuing a stag, or pursued himself by victorious enemies, was thrown from the summit of the rock without being hurt, the horse only leaving the print of his feet upon the stone. We must here observe, that after the appearance of these prints of the horse's feet, other impressions less in size being discovered, the workmen, it is said, amused themselves by enlarging the latter and deepening the former. If it had not been for this last circumstance, the phenomenon would naturally, in the present day, have attracted the attention of the learned. According to M. Humboldt and other naturalists, the impressions observed upon the freestone of Hildburghausen must have been made by footsteps of antediluvian animals, either quadrupeds or quadrumani, before the stone had completely hardened. Mr. Hitchcock has discovered upon the red freestone of Massachusetts an immense number of the impressions of the feet of birds of a species no longer existing; but M. de Blainville thinks it possible that these may be only the impression of vegetables, similar to those which the red freestone frequently presents.

To this sensible note the editor would add, that impressions of the feet of animals have frequently been found by geologists in secondary rocks. An American geologist even asserts that the prints of human feet are to be seen in the secondary limestone of the Mississippi, near St. Louis.—*American Journal of Science*, vol. xxxiii., p. 76.

ceive in what they beheld only a sunbeam reflected in the water."*

Secondly. In reducing to truth those histories in appearance fabulous, it will be often found sufficient to reduce to natural proportions details evidently exaggerated, or to regard as a weak and passing phenomenon that which is presented as a continued and active miracle. The diamond and the ruby, carried suddenly into darkness after a long exposure to the light of the sun, emit for some time an apparent phosphorescent light; a circumstance which, in the energetic style of the Oriental writers, has produced accounts of diamonds and carbuncles illumining all night, by the fires they emit, the depths of a dark wood and the vast saloons of a palace.

Under the name of *Roukh*, or *Roc*, the same narrators have described a monstrous bird, whose strength exceeds all probability. In reducing this exaggeration to the measure of positive fact, Buffon was enabled to recognize in this *Roc* an eagle, whose strength and dimensions nearly resembled those of the American *Condor*, or the *Lammer Geyer* of the Alps.† As far as we can judge, the

* Greg. Turon., *Miracul. Lib.*, § 1.

† Gypaetus *barbatus*, *Bearded Griffon of the Alps* of ornithologists, which Buffon confounded with the condor, Sarcoramphus *Gryphus*, Great Vulture of the Andes. No better instance of the effect of exaggeration, in reference to natural objects imperfectly known, could be advanced, than the early accounts of the condor. Setting aside writers of romance, we find Desmarchius, a naturalist, stating that the extended wings of the bird measure eighteen feet; that it can carry off a stag, and will attack a man; and Linnæus, misled by the narrators of the wild and wonderful, says, "that in nearing the earth, the rushing of its wings renders men as if planet-struck, and almost deafens them!" The most authentic account of the largest condor ever seen gives the measurement of the extended wings under fourteen feet; and Humboldt saw none that exceeded nine feet. The utmost length of the male bird, from the tip of the beak to the extremity of the tail, is rather more than three feet; and his height, when perched, two

Roc differs in little from the Burkout,* a very strong black eagle, frequenting the mountains of Turkistan, of whom the inhabitants relate the most extraordinary stories, and have even declared it to be as large as a camel.

Although we may disbelieve all that has been related respecting the immense *Kraken* of the North, and may accuse Pliny and Ælian of having exaggerated the dimensions of the two polypi of the sea, which were, nevertheless, seen by many who observed them, nearly at the same time when these authors wrote, yet it will be sufficient to admit, with Aristotle, that the arms of these polypi grew sometimes to six feet seven inches in length; and, with the authors of the new Dictionary of Natural History, we may believe that they were able to destroy a man in an open boat.† What becomes, then, of the tradition of Scylla, that monster, the scourge of the strongest fish that passed within its reach, and which, raising its six heads from beneath the water, drew in upon its long necks six of Ulysses's rowers?‡ If we substitute for the poetical exaggeration the possible reality, this monster would be no more than an overgrown polypus of

feet nine inches. The head of the male bird carries a comb, and, like other vultures, the head and neck are bare of feathers. The plumage is black, except the wing coverts, which are white; the claws are less powerful than those of the eagle. The condor inhabits the Andes at an elevation of 10,000 to 15,000 feet above the level of the sea: it usually hunts in pairs, and the couple will attack large quadrupeds; but Humboldt affirms that he never heard of men, nor even children, having been carried off by them. From these facts the reader may form some idea of the reliance to be placed on extraordinary stories.—Ed.

* In Russian, *Berkout*; in Chinese, *Kar-tchaa Hiao*. Guinkowski, *Voyage à Pekin*, tome i., p. 415.

† See Pliny, *Hist. Nat.*, lib. ix., cap. 30. Ælian, *De Nat. Anim.*, lib. xiii., cap. 6. Aristot., *Hist. Animal.*, lib. iv., cap. 1, et le *Nouveau Dictionnaire d'Histoire Naturelle*, 8vo, 1819, tome xxx., p. 462.

‡ Homer, *Odyss.*, lib. xii., vers. 90, 100, et 245, 269.

great size, fastened to the rock toward which these inexperienced navigators, fearing the whirlpool of Charybdis, directed their frail vessel. How many other fables in Homer are merely natural facts aggrandized by the poetical conception of the narrator?

In enumerating plants endowed with magical properties, Pliny names three, which, according to Pythagoras, had the power of freezing water.*

In another place, without reference to magic, Pliny bestows a similar property on the hemp. According to him, the juice of this plant, thrown into water, thickens it suddenly to the consistence of jelly.† Many mucilaginous vegetables produce the same phenomenon in different degrees; and, among others, the Althæa *cannabina* of Linnæus, and the rose-colored vervain, Verbena *aubletia.* "We have observed," says Valmont de Bomasi, in speaking of this latter plant, "that three or four leaves bruised, and put into an ounce of water, will give to it in a few moments the consistence of apple jelly."‡ Althæa *cannabina* produces the same effect to a certain degree; and it may also be obtained from every vegetable containing much mucilaginous matter: the fact before stated has been, therefore, merely exaggerated.

The plant named by Ælian *Cynospastos* and

* Plin., *Hist. Nat.*, lib. xxiv., cap. 12 et 13.

† Idem, lib. xx., cap. 23.

‡ *Dictionnaire d'Hist.*, art. *Obletia.* The common vervain, *Verbena officinalis,* indigenous in England and many parts of Europe, had formerly the reputation of possessing wonderful magical powers. It was termed *Hiera Botane,* "Holy Herb," by Dioscorides, and it entered into the composition of various charms and love-filters. Among the common people, it has still the reputation of securing affection from those who take it to those who administer it. It was held in great esteem by the Romans and the Druids, and the latter gathered it with religious ceremonies. These pretensions of the vervain were first set aside by the good sense of our countryman, John Ray, the botanist.—Ed.

Aglaophotis, and *Barras* by the historian Josephus, bears a flame-colored flower, which toward evening flashes like a kind of lightning.* It has been stated that a similar effulgence might be perceived upon the flower of the nasturtium at the moment of its fertilization; and, above all, in the evening after a very hot day. Experience has not confirmed this fact; nevertheless, we must not utterly reject the possibility of other vegetables, such as the Agaric of the *Olive-tree*, and the Euphorbia *phosphorea*, emitting such a light under particular circumstances. The error of Josephus and Ælian consists in supposing a casual phenomenon to be constant.†

"In the valleys bordering on the Dead Sea," says the traveler Hasselquist, "the fruit of the Solanum *melongena* (Linn.)‡ is attacked by an insect (a tenthredo), which converts the whole of the interior into dust, leaving the skin only entire, without destroying its form or color." It is in the same district that Josephus places the *Apple of Sodom*, which, he relates, deceives the eye by its color, and crumbles in the hand into ashes evolving smoke, a phenomenon intended to commemorate, by a permanent miracle, a punishment as just as it was terrible. This particular incident, observed by the modern naturalist, has been generalized by

* Fl. Joseph., *De Bello Judaico*, lib. viii., cap. 25. Ælian, *De Nat. Animal.*, lib. iv., cap. 27. This plant is the Atropa *belladonna*.

† *Comptes rendus des Séances de l'Académie des Sciences*, 2 vols., 1837.

‡ Hasselquist, *Voyage dans le Levant*, tome ii., p. 90. The traveler Broucchi not having found the Solanum *melongena* on the borders of the Dead Sea, or near Jerusalem, thinks that Hasselquist had been deceived, and that the Apple of Sodom is merely a gall-nut, formed by the incision of an insect upon the Pistacia *terebinthus*.—*Bulletin de la Société de Géographie*, tome vi., p. 3.

the ancient historian, who has also added to it the divine malediction.

An American naturalist* affirms that, at the approach of any danger, the young of the rattlesnake take refuge in the mouth of their mother. A similar instance may have induced the ancients to suppose that some animals produce their young by the mouth, thus drawing a most absurd and hasty conclusion from a real fact.

In some cases the duration of a phenomenon has been exaggerated, and in others that which has long ceased to exist has been described as still existing. "The Lake Avernus," say the ancient writers, "received its name from the fact that birds could not fly over it without falling down dead, suffocated by the vapors exhaled from it." We know that, in the present day, birds fly with impunity near to its surface. Is the tradition thus cited then utterly false? Some reasons induce me to doubt: "For," says a traveler,† "the marshes of Carolina are in places so insalubrious, and so completely surrounded by great woods, that, during the heat of the day, birds as well as aquatic animals die in attempting to cross them." Full of sulphureous springs,‡ and, like the marshes of Carolina, surrounded by thick forests, the Lake Avernus§ formerly exhaled most pestilential vapors; but, Augustus having had these woods thinned, this insalubrity was succeeded by an agreeable, wholesome atmosphere. The prodigy has ceased to exist, but the tradition has been obstinately preserved; and the imagination, struck with a religious terror, look-

* De Witt Clinton, *Preface to the Transactions of the Philosophical Society of New York*, 1825. *Bibliothèque Universelle Sciences*, tome ii., p. 263.

† M. Bosc, *Bibliothèque Universelle Sciences*, tome v. (Mai, 1817), p. 24. ‡ Servius, *in Æneid*, lib. iii., vers. 441.

§ Aristot., *De Mirab. Auscult.*

ed for a long time upon this lake as one of the entrances to the Valley of Death.*

Thirdly. Improper or ill-conceived expressions, not less than exaggeration, tinge a real fact with a marvelous, false, or ridiculous coloring.

A popular error, the origin of which has been traced to the instructions of Pythagoras, had for a long time established some mysterious connection between particular plants and the diseases which men suffer at the period of their blossoming; and, although the disease might be perfectly cured, yet, when these plants flowered again, the individuals always re-experienced† some faint return of the disease. This is a fact incorrectly stated, in order to deceive the multitude, who can scarcely distinguish the different periods of the year, except by the phenomena of vegetation: the fact has no connection with the plants, but strictly belongs to the revolutions of the seasons. The spring, for instance, frequently brings with it periodical returns of gout, rheumatism, and even diseases of the brain.‡

* A real valley of death exists in Java. It is termed the *Valley of Poison*, and is filled to a considerable height with carbonic acid gas, which is exhaled from crevices in the ground. If a man, or any animal, enter it, he can not return; and he is not sensible of his danger until he feels himself sinking under the poisonous influence of the atmosphere which surrounds him, the carbonic acid of which it chiefly consists rising to the height of eighteen feet from the bottom of the valley. Birds which fly into this atmosphere drop down dead; and a living fowl, thrown into it, dies before it reaches the bottom, which is strewed with the carcasses of various animals that have perished in the deleterious gas.—Ed.

† Plin., *Hist. Nat.*, lib. xxiv., cap. 17.

‡ Although the above explanation is true in part, yet it is also true that various odors, such, for instance, as that of ipecacuanha and of the Pelargonium, or African geranium, cause, in some individuals, an attack of spasmodic catarrh; in others the odor of sweet vernal grass, Anthoxanthum *odoratum*, brings on a fit of asthma, attended with fever; hence the term *hay-asthma*; and such persons always suffer at hay-making time, for, as the grass dries, the odor is most powerfully exhaled.—Ed.

The appearance of falsehood and prodigy, joined to impropriety of expression, is more striking when ancient authors repeat what has been related to them respecting foreign countries in any other language than their own; or when modern writers translate without fully understanding the originals, and then accuse them of error.

"In the vicinity of the Red Sea," says Plutarch, "are seen creeping from the bodies of some diseased people little snakes, which, on any attempt to seize them, re-enter the body, and cause insupportable suffering to the wretched beings."* This statement has been regarded as an absurd story, and yet it is an exact description of a disease called "the Guinea worm," known not only in those regions, but on the coasts of Guinea and Hindostan.†

Herodotus relates, that in India "ants larger than foxes, when digging their holes in the sand, discover the gold which is mixed with it."‡ Another edition of this marvelous narration, evidently compiled from the accounts of the ancients, describes animals existing in an island near the Maldives, which are larger than tigers, but in form resembling ants.§ In the sandy mountains contain-

* Plutarch, *Symposiac.*, lib. viii.

† The "Guinea worm" disease prevails in the marshy districts of Africa, and among negroes in the West Indies, where it is endemic in the months of November, December, and January, and in the same months at Bombay. The worm is the Filaria *dracunculus;* it is white, of great length, varying from eight inches to three feet, and the thickness of a violin cord throughout its entire length, except at the tail, which is thin and curved. It is supposed to have an external origin, and its eggs to be taken into the habit with water used as drink; but this opinion requires confirmation. It appears under the skin, and when it is about to issue, a small pustule rises, on the bursting of which the head of the worm is obtruded. It is removed by winding it round a piece of stick, desisting when it can not be freely drawn forth, and continuing the winding until the whole is obtained.—Ed.

‡ Herod., lib. iii., cap. 102.

§ *Les Mille et un Jours,* Jour cv., cvi. Ælian.

ing gold dust, near *Grangué*; some English travelers have seen animals whose forms and habits in some measure explain these accounts of Eastern and Greek historians.*

Pliny and Virgil describe the *Seres* as gathering silk from the tree which bears it, and which the poet likens to a cotton plant.† This too literal translation of a correct expression makes it appear as if the silk were the produce of the tree, upon which insects deposit it, and from which men gather it. Ctesias speaks of "a fountain in India which was filled every year with liquid gold. Every year the gold was dragged up in a hundred earthen amphora, at the bottom of which, when broken, the gold was found hardened, of the value of a talent."‡ Larcher turns this account into ridicule, and particularly insists on the disproportion of the produce to the capacity of the fountain, which could not contain less than a cubic fathom of this liquid.§

Ctesias's account is correct, but not his expressions; instead of saying liquid gold, he should have said gold suspended in water. In other places he is careful to explain that it was the water, and not gold, which they drew up. In the marshes of Libya (to which Achilles Tatius compares the above-mentioned spot) gold was obtained by plunging poles plastered with pitch into the mud‖ of a fountain which was the basin of a gold washing; such as exists wherever rivers or soils containing auriferous earth are to be found, and of which some very important ones exist in Brazil.

* *Asiatic Researches*, vol. xii. *Nouvelles Annales des Voyages*, tome i., p. 311, 312.

† Pliny, *Hist. Nat.*, lib. vi., cap. 17. Virgil, *Georg.*, lib. ii., v. 120, 121; but Servius, in his Commentaries, assigns silk to its true origin.

‡ Ctesias, in *Ind. apud Photium.*

§ Larcher, *Traduction d'Hérodote*, 2e édition, tome vi., p. 243.

‖ Achill. Tat., *De Clitoph. et Leucipp. Amor.*, lib. ii.

For extracting the gold the method used in the present day was that employed; namely, evaporating the water until the gold was precipitated to the bottom, and upon the sides of the vessels containing it, which were then broken, and the fragments, no doubt, washed or scraped. Ctesias adds that iron was found at the bottom of the fountain, and this statement confirms the truth of his account. To disengage the gold from the oxyd of iron is one of the greatest labors of the gold washers of Brazil.* The gold of Bambouk, which is also collected by washing, is so mingled with iron and emery powder as to require great care in separating the base from the precious metal.†

From time immemorial the Hindoos have had a custom of placing a perfumed pastille in the mouth before addressing any person of superior rank. This substance, were it described in any other than the Hindostanee, would be looked upon as a *talisman*, the possession of which was requisite to obtain a favorable reception to its possessor from the powerful ones of the earth.

The Halliatoris,‡ we are told, was used in Persia to enliven a feast, or to assist in procuring places nearest the king; these are figurative expressions, the meaning of which it is easy to decipher. They are merely intended to show that certain favor and pre-eminence was shown to him who, among a people addicted to wine and the pleasures of the table, was at the same time the gayest and the most capable of bearing much wine. The Persians, and even the Greeks, exulted in being able to drink much without suffering intoxication, and

* Mawe, *Travels in the Interior of Brazil*, vol. i., p. 135, 330.
† Mollien, *Voyage en Afrique*, tome i. p. 334 et 335.
‡ Plin., *Hist. Nat.*, lib. xxiv. cap. 17, different editions of Pliny's work.

sought out all kinds of specifics to counteract the effects of wine. For this reason, they ate the seeds of the cabbage* and boiled cabbage. Bitter almonds were used for the same purpose, and, it appears, with some success.† All this favors the conjecture that the *halliatoris* was endowed with the same property, to such an extent that drunkenness had neither power to confuse the intellect, nor to pass beyond the bounds of gayety.

And what, it may be asked, was the plant Latacé, which the kings of Persia gave to their envoys, and in virtue of which their expenses were defrayed wherever they went?‡ It was a peculiar sign, a rod of a particular form, or a flower embroidered upon their garments, or on their banners, announcing the titles and prerogatives which were borne by them.

Instead of the water, which the fugitive Sisera, exhausted with fatigue and thirst, had supplicated, Jael, with the intention of making him sleep,§ gave him milk. What reason have we, who call an emulsion of almonds milk, for doubting that, in the original Hebrew, this word signified a somnifer-

* Athenæus, *Deipnos.*, lib. i., cap. 30.

† The bitter almond contains the constituents of Prussic acid and a peculiar volatile oil, resembling the peach-blossom in its odor; both are developed when the almond is bruised and brought into contact with water. When the bitter almond, therefore, is masticated and receives moisture in the mouth and stomach, the Prussic acid then formed operates as a powerful sedative upon the nervous system, and renders the body less susceptible of the influence of excitants, consequently of wine. It forms, as it were, the balance in the opposite scale, and preserves the equilibrium between the sinking which would result from its use were no wine taken and the intoxication which would follow an excess of wine were the bitter almonds not eaten. Plutarch informs us that the sons of the physician of the Emperor Tiberius knew this fact, and, although most intrepid topers, yet they kept themselves sober by eating bitter almonds.—Ed.

‡ Plutarch, *Symposiac*, lib. i., quest. 6. Athenæ., *Deipnos.*, lib. ii., cap. 12.

§ Plin., *Hist. Nat.*, lib. xxvi., cap. 4.

ous drink, deriving its name from its color and taste.*

When Samaria was besieged, the town was a prey to all the horrors of famine; hunger was so extreme that five pieces of silver was the price given for a small measure (fourth part of a cab) of dove's dung.† This seems, at first sight, ridiculous. But Bochart maintains, very plausibly, that this name was then, and is still, given by the Arabs to a species of vetch *(pois chiches)*.

The Chinese historians affirm that wine in which the feathers of the Tchin are macerated becomes a deadly poison; and history contains numerous instances of poisonings achieved in this manner.‡ We are not acquainted with any bird endowed with so fatal a property; but the fact may be explained by supposing that the poison was, in order to preserve it, inserted into the quill of a feather; and thus, we are told, Demosthenes caused his own death by sucking a pen.

* *Book of Judges*, cap. iv., vers. 17–24. It is surprising that our author should have attempted an explanation of an event which requires none. The following is the passage in the Book of Judges: "Howbeit Sisera fled away on his feet to the tent of Jael, the wife of Heber the Kenite; for there was peace between Jabin the king of Hazor and Heber the Kenite. And Jael went out to meet Sisera, and said unto him, Turn in, my lord, turn in to me, fear not. And when he had turned in unto her, into the tent, she covered him with a mantle. And he said unto her, Give me, I pray thee, a little water to drink, for I am thirsty. And she opened a bottle of milk, and gave him drink, and covered him. Then Jael, Heber's wife, took a nail, a nail of the tent, and took a hammer in her hand, and went softly unto him, and smote the nail into his temples, and fastened him to the ground (for he was fast asleep and weary). So he died." Every incident is natural; his sleep arose from fatigue, as stated, and not from a narcotic.—Ed.

† 2 *Kings*, vi., 25.

‡ J. Klaproth, *Lettre à M. Humboldt sur l'Invention de la Boussole*, p. 89. The tchin, according to the Chinese writers, resembled a vulture, and fed upon poisonous serpents. In reference to its name, a word has been formed which signifies to poison. (I owe this note to M. Stanislas Jullien, a member of the Institute of France.)

Midas, king of Phrygia,* Tanyoxartes, brother of Cambyses,† and Psammenites, king of Egypt,‡ died, it is said, in consequence of drinking bull's blood, and the death of Themistocles has been attributed to the same cause. Near the ancient town of Argos, in Achaia, was a temple of *Terra:* the moral purity of its priestesses was tried by making them drink the blood of the bull.§

Experience has proved that the blood of bulls does not contain any deleterious property. But, in the East and in some of the Grecian temples, they possessed the secret of composing a beverage which could procure a speedy and easy death, and which, from its dark red color, had received the name of *bull's blood*, a name, unfortunately, expressed in the literal sense by the Greek historians. Such is my conjecture, and, I trust, a plausible one. We shall also, by and by, see how the name, blood of Nessus, which was given to a pretended love philter, was taken in a literal sense by some mythologists, who might have been set right by the very accounts of it which they copied.‖ The blood of the hydra of Lerna, in which Hercules's arrows being dipped rendered the wounds they inflicted mortal, seems to us to signify nothing more than that it was one of those poisons which archers in every age have been accustomed to make use of in order to render the wounds of their arrows more deadly.

And, again, we have a modern instance of the same equivocation. Near Basle is cultivated a wine which has received the name of *blood of the Swiss*, not only from its deep color, but from the circum-

* Strabo, lib. i. † Ctesias, in *Persic. apud Photium.*

‡ Herodotus, lib. iii., cap. 13.

§ Pausanias, *Achaïe*, cap. xxv. Whatever was the nature of the poison termed *Bull's blood*, Dioscorides (lib. v., 130) informs us that the antidote was a mixture of nitre and benzoin.—ED.

‖ See chap. xxv

stance of its being grown on a field of battle, the scene of Helvetian valor. Who knows but that, in a future day, some literal translator may convert those patriots, who every year indulge in ample libations of the blood of the Swiss at their civic feasts, into anthropophagi.*

To confirm this remark, we have only to seek in history for proofs of the means by which a simple fact has been transformed into a prodigy, owing to the expressions employed to describe it being less correct than forcible.

Assailed by the Crusaders, and scared by the looks which these warriors, completely clothed in metal, darted upon them through their visors, the trembling Greeks described them as "men of brass, whose eyes flashed fire."†

The Russians, in Kamtschatka, are still called *brichtains*, men of fire, an appellation which the inhabitants gave them, from their imagining, when they saw them use fire-arms for the first time, that the fire issued from their mouths.‡

Near the burning mountains, north of the Missouri and the River of St. Peter, dwell a people who appear to have emigrated from Mexico and the adjacent countries at the time of the Spanish invasion. According to their traditions, they had hidden themselves in the inland country, at a time when the sea-coast was continually infested by enormous monsters, vomiting lightning and thunder, and from whose bodies came men who, with unknown instruments, and by magical power, killed the defenseless Indians at immense distances.§ They observed that these monsters could not reach

* W. Coxe, *Letters upon Switzerland*, letter xliii.
† Nicetas, *Annal. Man. Comn.*, lib. i., cap. 4.
‡ Kracheninnikof, *Hist. of Kamtschatka*, part i., chap. 1.
§ Carver, *Travels in North America, &c.*, p. 80, 81.

the land, and, in order to escape from their blows, they took refuge in distant mountains. We see here that the vanquished at first doubted whether these advantages were not more to be attributed to better arms than to the power of magic. It is probable that, deceived by appearances, they endowed with life the ships which seemed to move of themselves, and transformed them into monsters; and this prodigy has either from that day been firmly rooted in their minds, or, on the contrary, it was merely a bold metaphor invented to depict and to perpetuate so novel an event.

But this instance leads us to the consideration of one of the most fertile causes of the marvelous; namely, the use of a figurative style.

Fourthly. That style which, contrary to the intention of the narrator, clothes facts in a supernatural coloring, is not confined to the art, or, rather, the habit, common to lively imaginations, of employing poetical expressions and bold images in the recital of those deep feelings, or those facts which they desire to fix upon the memory. Man is every where inclined to borrow from the figurative style the name which he gives to any new object, with the aspect of which he has been struck. For instance, a parasol was imported to the center of Africa, and the inhabitants called it the "cloud;"* a picturesque designation which, some day or other, may become the foundation of a marvelous story. Our passions, in short, which speak more frequently than our reason, have introduced expressions eminently figurative into every language, which no longer appear to be such, so completely has their literal sense been lost in the habit of differently applying them. *To be boiling with anger;*

* *Travels in Africa,* by Denham, Clapperton, and Oudeney, vol. iii.

to bite the ground; swift as the wind; to cast one's eyes, are expressions which, if a foreigner, knowing the words, but not the idiom of the language, were to translate literally, would appear nonsense; and what fables might result! Such, indeed, has been already done: for instance, we are seriously told that Democritus, who devoted his life to observing nature, had put out his eyes, that he might meditate without distraction of mind.* It has been told, also, that stags are enemies to snakes, and can make them fly;† an assertion depending on the fact that the smell of burned hartshorn is disagreeable to serpents, and causes them to turn away.

The bites of the boa are not venomous, but the serpent squeezes its victim to death by twining round it; and from this fact was derived the fable of the dragon, whose tail was said to be armed with an envenomed barb. When pressed by hunger, such is the swiftness of the boa, that its prey rarely escapes it: poets have compared its course to a flight, and vulgar superstition immediately bestowed real wings upon the dragon. The names of basilisk and asp were employed to designate reptiles so agile that it is difficult to escape their attack at the moment they are perceived; the asp and basilisk were, therefore, supposed to cause death by their breath, or only by their look. Of all these figurative expressions, the foundation of so many physical errors, none was bolder than the expression applied by the Mexicans to describe the rapidity of the rattlesnake: they called it the *wind*.‡

A church threatened to give way, St. Germain

* According to Tertullian (*Apologet.*, cap. xlvi.), he blinded himself that he might be placed beyond the influence of love, as he could not see any woman without loving her. This tradition is also founded on the literal interpretation of a figurative expression.

† Ælian, *De Nat. Animal.*, lib. ii., cap. 9.

‡ Lacépède. *Hist. Nat. des Serpents*, art. *Boiquira*.

at Auxerre,* and St. Francis of Assisi,† at Rome, sustained the edifice, which, from that moment, remained immovable on its foundations. Credulity believes this to have been a miracle; but the real meaning of the allegory is, that the bishop and the founder of the order were, by the influence of their doctrine and works, the support of a tottering Church.

In prayer and in religious contemplation the fervent man is, as it were, ravished into ecstasy; he seems no longer to belong to earth, but is raised to heaven. The enthusiastic disciples of Iamblichus affirmed, in spite of their master's assertions to the contrary, that when he prayed he was raised to the height of ten cubits from the ground;‡ and dupes to the same metaphor, although Christians, have had the simplicity to attribute a similar miracle to St. Clare,§ and St. Francis of Assisi.

* Robineau Desvoidy's *Description des Cryptes de l'Abbaye St. Germain à Auxerre* (an unpublished work), *liber conformitatum, S. Francisi*, &c. St. Germain was born at Auxerre, of noble parents, and died at Ravenna. He was originally a lawyer. He married, and was created a duke by the Emperor Honorius; but through the means of St. Amater he took the tonsure, lived with his wife merely as a sister. and at the death of Amater was chosen Bishop of Auxerre. He is reported to have given sight to the blind, raised the dead, and performed numerous miracles! —Ed.

† St. Francis of Assisi, the founder of the order of Franciscans, was born in 1182. He was baptized by the name of John, but was afterward called Francis, from the facility with which he acquired the French language. His supernatural visions and miracles would fill a volume. He died in 1226, and two years afterward he was canonized at Assisi by Gregory IX.*—Ed.

‡ Eunap. in Iamblich.

§ St. Clare, the daughter of Paverino Sciffo, a noble knight, was born at Assisi, in Italy, in 1193. At a very early age she displayed a strong bias for devout observances; and at the age of eighteen received tho penitential habit from St. Francis, who placed her in the nunnery of St. Paul, in Assisi, whence her relations endeavored in vain to remove her. She afterward, by the

* Butler's *Lives of the Fathers, Martyrs, and Saints*, vol. i, p. 137. Ibid., vol. ii., p. 569.

This transformation of an allegory into a physical fact may be traced to a remote period, if we can rely on a learned individual of the fifteenth century, but one who, like most of his cotemporaries, too seldom indicates the source from which he derived his information. Cœlius Rhodiginus relates that, according to the Chaldeans, the luminous rays emanating from the soul do sometimes divinely penetrate the body, which is then of itself raised above the earth. This, he says, occurred to Zoroaster; and he attempts to explain, in the same manner, the translation of Elijah into heaven, and the trance of St. Paul.*

In the kingdom of Fez is a little hill which requires to be crossed either by dancing or with a great deal of action, in order to avoid an endemic fever prevalent there.† The relation of this popular custom, which has existed and been obeyed for more than a hundred years, has been treated with scorn by some enlightened men. What, indeed, at first sight, could have a more ridiculous effect? Nevertheless, what is the advice given to all travelers in the Campagna of Rome, and in the vicinity of the Eternal City? They are told to struggle against the drowsiness that will insensibly steal over them, by forced and violent movements; as yield-

aid of St. Francis, founded the order which bears her name. Her humility, austerity, prayers, and her contempt for the persecutions which she suffered, were remarkable even in the period in which she lived. She died in 1253. The order was brought into England in 1293, by Blanche, queen of Navarre, and had a house without Aldgate: the nuns were called *Minoresses*, as the Franciscans were called *Minors*, a name imposed by their founder on account of their humility. From them the Minories received its name. —Ed.

* *Arbitrabantur Chaldæorum scientissimi ab rationali anima id . . . effici quandoque ut radiorum splendore, ab ipsa manantium, illustratum diviniore modo corpus etiam surrigat in sublime*, &c., &c.—Cœlius Rhodig., *Lection. Antiq.*, lib. ii., cap. 6.

† Boulet, *Description de l'Empire des Cherifs*, p. 112.

ing to it only for a moment would expose them to an attack of fever, always dangerous, often fatal.

In Hai-nan, and in almost the whole province of Canton, the inhabitants rear a species of partridge, which they call *tchu-ki*. They say that the instant one of these birds is introduced into a house the white ants quit it; doubtless, because this bird destroys a quantity of them for food. The Chinese, however, poetically assert that the *cry of the tchu-ki changes the white ants into dust:** it would be converting a ridiculous saying into a prodigy, if we literally believed this emphatic expression.

We are told, also, that every spring time, in those deserts which separate China from Tartary, yellow rats are transformed into yellow quails; and that in Ireland and in Hindostan the leaves and fruit of a tree, planted near the water, become first shell-fish, and then aquatic birds.† In both narrations,

* Jules Klaproth, *Description de l'Ile de Hai-nan* (*Nouvelles Annales des Voyages*), deuxième série, tome vi., p. 156.

† The aquatic bird noticed in the above passage is the *Barnacle goose*, and it is scarcely possible to adduce a more striking instance of the credulity of even those regarded, in their period, as the learned and philosophic, than their belief that the barnacle, Pentalasmis *antifera* (Leach), is the origin of that bird. The barnacle is a marine, testaceous animal, covered with a nearly triangular shell, composed of five distinct pieces. The animal itself is compressed, enveloped in a thin mantle, and furnished with curled tentacula. It attaches itself by a long, fleshy peduncle to rocks, to the bottoms of ships. and even to the branches of trees that grow upon the margin of the sea and dip into the waters. Many of the old writers described these animals, when they appeared on trees, as the fruit, in which, say they, is to be found the lineaments of a fowl, and from which, when ripe and dropped into the sea, the fowl comes forth and takes wing. Even so late as 1636, Gerard, the celebrated author of the *Herbal*, a man of learning, observation, and in many points of acknowledged accuracy, impresses upon his readers the truth of this absurd fable. He thus describes the coming forth of the bird: "Next came the legs of the bird hanging out; and as it (the bird) groweth greater it openeth the shell by degrees, till at length it is all come forth, and hangeth only by the bill; in short space after it commeth to full maturitie, and falleth into the sea, where it gathereth feathers, and groweth to a fowle bigger than a mallard, and lesser than a

if we substitute the idea of the metamorphose for that of a successive appearance, the absurdity vanishes and the truth appears.*

The amethyst is a precious stone, which is colored and sparkles like wine. Instead of this description, so coldly exact, figurative language has substituted an expressive image in its name, Αμεθυστος, amethystos, *not intoxicating*, or *wine that does not inebriate;* and it is from this name having been literally translated in Greece, that the amethyst was supposed to possess the miraculous power of preserving from drunkenness the man who was adorned with it.

Is this, we may ask, the only poetical flight, the only metaphor which has been transformed into a history? Bacchus,† with the thyrsus which he car-

goose." He adds: "If any doubt, may it please them to repaire to me, and I shall satisfie them by the testimonie of good witnesses.' The absurdity of this delusion requires no comment.—Ed.

* *Eloge de Moukdem*, p. 32 and 164.

† Bacchus was the Roman name for the Grecian god Dionysus, whom the Greeks, both in Asia and Europe, universally worshiped. In the whole history of polytheism, we find no rites more extravagant, sensual, and savage than those of the Dionysia or Bacchic festivals. The men present at them took the disguise of satyrs, and the women acted the parts of bacchæ, nymphs, and other inferior deities, and committed the greatest excesses. At an early period these festivals were often solemnized with human sacrifices; and pieces of the raw flesh, cut from the bodies of the victims, were distributed among the bacchæ. (From the Attic Dionysia, nevertheless, both tragedy and comedy derived their origin.) In Italy, the bacchanalia were scenes of the coarsest excesses and the most unnatural vices. They were latterly carried on at night, and often stained with poisonings, assassinations, and every crime. Although conducted in Rome, and although the number of the initiated was said to be seven thousand, yet the existence of these meetings appears to have been unknown to the Senate until A.D. 186, when they were put down, after a report on them had been made to that august assembly, by the consuls Spurius Postumus Albinus and Quintus Marius Philippus. The delinquents were arrested and tried; many of the men were imprisoned, others were put to death; and the women were delivered to their parents and husbands to be privately punished.—Livy, lib. xxxix., 14.—Ed.

ried in his hand, having pointed out a spring of water to the troop who followed his steps,* "the god," it was reported, "caused a spring to rise by striking the ground with his thyrsus;" and, with a slight alteration of the fable, we read also that Atalanta struck her lance against a rock, from which instantly gushed a spring of fresh water.† It is in this manner that poetry explains and describes, in some brilliant allegory, the prodigy that credulity has laid hold of, but which, in reality, is only the consequence of its figurative style.

Similar errors may be laid to the charge of history, and even of natural history. If Rhésus, at the head of a considerable army, had been able to unite his forces with the defenders of Troy, the Greeks, exhausted by a ten years' struggle, would have despaired of victory. A declaration of what was so easily foreseen was poetically expressed, and became one of the *fatalities* of this famous siege. The Fates, it was said, would not permit Troy to be taken, if the horses of Rhésus were once permitted to taste the grass which grew on the borders of the Xanthus, or to quench their thirst in its waters.

On the celebration of the day of some saint revered in Ireland,‡ the fish, if we could believe a writer of the twelfth century, raise themselves from the bosom of the sea, pass in procession before his

* Pausanias, lib. iv., cap. 36. † Pausanias, *Laconic.*, cap. 21.

‡ Saint Patrick, the titular saint of Ireland. He was a Scotch Roman, and was born in 372, in the Roman village Benaven Taberniæ, now the town of Killpatrick, at the mouth of the Clyde, between Glasgow and Dumbarton. His family name was Caliphurnia. At an early age he was carried captive into Ireland, where he was forced to keep cattle, and suffered many hardships, during which time he is said to have been admonished in a dream to undertake his mission. Many miracles, equally absurd as the prodigy noticed in the text, are related as having been performed by St. Patrick.—Ed.

altar, and disappear after having rendered him homage.* The saint's day most probably fell in that period of the spring when, on the coast where his church was built, might be seen periodical shoals of herrings, mackerel, or tunnies.

Nonnosus, who was sent by the Emperor Justinian on a mission to the Saracens of Phœnicia and Mount Taurus, heard that while the religious assemblies of these people lasted, they lived in peace among themselves and with strangers, "that even beasts of prey respected their universal peace, and observed it toward mankind and their fellows."†

Photius regards the traveler on this occasion as a narrator of fables. Nonnosus, however, only repeated what he had heard, but mistook for a fact a poetic expression, or mode of speech, frequently used in the East, and also to be found in one of the most eloquent of the Hebrew writers;‡ a mode of speech employed by the Greeks and Romans, also, in their pictures of the Golden Age, and which Virgil less happily made use of in his admirable description of an epizootic (a disease among cattle), which desolated the north of Africa and the south of Europe.§

It is a well-known fact that a sudden and striking alarm often arrests speech; such, for instance, as a person experiences who finds himself unexpectedly before a wild beast. But it has been said that a man loses his power of utterance when he is seen by a wolf, although the animal is unobserved by him. This figurative expression has been even taken literally, and it has furnished a proverb, which is not only found in Theocritus and Virgil,‖ but in

* Gervais de Tilbery, *Otia Imper.*, cap. 8. *Hist. Litt. de la France*, tome xvii., p. 87. † Photius, *Biblioth.*, cod. iii.

‡ Isaiah, cap. xi., verses 6, 7, 8.

§ Virgil, *Georg.*, lib. iii. See, also, *Eclog.*, viii., v. 27.

‖ Theocrit., *Idyll*, xiv., v. 22. Virgil, *Eclog.*, ix., v. 54.

Solinus and Pliny, who have also adopted it. The former very seriously speaks of "a particular species of wolf in Italy which affects any man it sees with dumbness; its victim, in endeavoring to cry, finds that his voice is lost."*

Varro, Columella, Pliny, and Solinus† relate that the mares of Lusitania conceive by the breath of the wind; but Pompeius Trogus‡ understood this expression as merely metaphorical of the rapid multiplication of these animals, and their swiftness in the course.

Fifthly. What emblems are to the sight, a figurative style is to the mind. Their influence has produced many extraordinary narrations, and in every age of antiquity they were employed to illustrate any thing of importance, in dogmas, in recollections, in morals, and in history. Their meaning, perfectly understood in the commencement, often became gradually less so, and after some length of time was completely lost to the ignorant and unreflecting. The emblem, nevertheless, remained, and when seen by the people, at once commanded their belief and veneration; henceforth the representation, however absurd and monstrous, naturally took

* Solinus, cap. viii. Plin., *Hist. Nat.*, lib. viii., cap. 22. Solinus was a Roman author, who borrowed freely from Pliny. The effect which he describes has been attributed to a supernatural cause by modern superstition. A woman, in the night, saw four thieves enter her apartment through the window; she attempted to cry, but could not. They took her keys, opened her coffers, possessed themselves of her money, and escaped by the same window. The woman then recovered her voice, and called for assistance. The impossibility of her calling out when the thieves were in her chamber was said to be the effect of sorcery. Fromann, *Tractatus de Fascinatione*, p. 558, 559.

† Varro, *De Re Rustica*, lib. ii. Columell., lib. vi., cap. 27. Plin., *Hist. Nat.*, lib. viii., cap. 42. Solinus, cap. 26.

‡ Justin, lib. xliv., cap. 3. Pompeius Trogus was a Roman historian in the time of Augustus. His great work, "Historiæ Philippiæ et Totius Mundi Origines," is known only in the abridgment by Justinus; but Pliny, *Hist. Nat.*, lib. vii., 3, mentions a work by Trogus on animals.—Ed.

its place in the common belief as the real object it was originally intended to commemorate. From a symbol representing religion and laws, emanating from the supreme Intelligence, sprung the fable that a falcon had borne to the priests of Thebes a book containing religious rites and laws.* Certain islands of the Nile were, according to Diodorus,† defended by serpents with dogs' heads, and other monsters. These monsters and serpents were probably emblems intended to point out that these islands were consecrated to the gods, and were consequently inaccessible to profane mortals.

How many fables and prodigies in the records of Egypt, how many in the records of India and of Greece, have an analogous origin!

It has been related, and the story is still repeated without reflecting that the thing is absurd, that such was the strength of Milo of Croton, that, when he stood on a narrow quoit, no one could displace or tear from him a pomegranate, which he held in his hand, but which, nevertheless, he did not press violently enough to crush; nor could they separate from one another the fingers of his right hand, which he held extended. Milo, says a man learned in religious rites and emblems, was, in his own country, high-priest of Juno: his statue placed in Olympia represented him, according to the sacred rite, standing upon a little round buckler, and holding a pomegranate, the fruit of the tree dedicated to the goddess. The fingers of his right hand were extended and joined together, in the manner the ancient sculptors always represented them.‡ Thus was an imperfection of art made the foundation of a miraculous story.

It is not necessary to dive deep into antiquity for

* Diod. Sic., lib. i., par. ii., § 32. † Idem, lib. i., par. i., § 19.
‡ Apollonius de Tyanus, *Vit. Apollon.*, lib. iv., cap. 9.

similar facts. In the Middle Ages, figured almanacs were used as the only means of instructing those who could not read. To explain to them that a martyred saint had perished by decapitation, they painted him as standing and holding between his hands the head which had been separated from his body.* This emblem was doubtless the more easily adopted, as it had for some length of time fixed the attention, and consequently the reverence, of the multitude in the hieroglyphic calendar of a more ancient religion.†

From the calendars the emblems naturally passed to the statues and various representations of the martyrs. I have seen St. Clara in a church in Normandy; St. Mitrius at Arles;‡ and in Switzerland all the soldiers of the Thebean legion represented with their heads in their hands.

St. Valery, also, is painted with his head in his hands, upon the doors and other parts of the Cathedral at Limoges.§ St. Felix, St. Regula, and St. Exuperantius|| are presented in the same attitude upon the great seal of the Canton of Zurich. This, no doubt, was the origin of the pious fable they relate of these martyrs, of St. Denis,¶ and many others: such as St. Maurice of Agen;** St. Prin-

* See Menagiana, tome iv., p. 103. Some of the illustrated calendars are probably still existing, and may be found in the cabinets of the antiquary.

† *Sphæra Persica*, Capricornus Decanus, iii., "*Dimidium figuræ sine capite quia caput ejus in manu ejus est.*"

‡ St. Mitrius is the patron saint of Aix in Provence, where he suffered martyrdom under Dioclesian.—Ed.

§ C. N. Allou, *Description of the Monuments of the Department of Upper Vienne*, p. 143.

|| St. Exuperantius is not found upon any seals before 1240.

¶ "Se cadaver mox erexit,
Truncus truncum caput vexit,
Quo ferentem hoc direxit
Angelorum legio."

Sung in the offices of St. Denis, until the year 1789

** *Mémoires de la Société des Antiquaires de France*, tome iii., p. 268, 269.

cipius at Souvigny, in Bourbonnais; St. Nicasius, the first bishop of Rouen; St. Lucian, the apostle of Beauvais; St. Lucain, bishop of Paris;* St. Balsemus at Arcy-sur-Aube; and St. Savinian at Troyes.† The year 275 furnished no less than three more headless saints to the diocese of Troyes in Champagne.‡ The origin of the above legend may be traced first of all to some cotemporary hagiographer having employed a strong figure of speech, still used among us, who, in attempting to describe all the obstacles and dangers which attended the faithful eager to render the last services to the martyrs, probably called the forcible carrying away, and burying of the sacred remains, a real miracle. The attitude in which the saints were offered to the public veneration explained the nature of this miracle, and gave some kind of authority for saying that, although beheaded, the martyrs had walked from the place of their decapitation to that of their sepulture.

Sixthly. To what lengths will not a credulous curiosity extend, when from various explanations it selects the most marvelous? The veil of an allegory, or a fable, however transparent it may be, arrests attention.

The crowing of the cock makes the lion fly, is an old remark, believed in its literal sense by the ignorant: the better informed know that at the dawn of day, which is announced by the crowing of the cock, carnivorous animals voluntarily return to their dens.

* J. A. Dulaure, *Histoire Physique, Civile et Morale, de Paris*, tome i., p. 142.

† *Promptuarium Sacrum Antiquitatum Trecassinæ Diœcesis*, v. 335 et 390.

‡ L. P. Deguerrois, *La Sainté et Chrétienne*, fol. 33, 34, 38, 39, 48. In a life of St. Par, one of these three martyrs, printed at Nogent-sur-Seine in 1821, this marvelous narration is repeated.

Moral proverbs clothed in equally transparent garbs have, nevertheless, passed as axioms of natural science. Love vanquishes all things, even the most formidable: the ferocity of a lion is appeased, we are told, at the sight of a woman unveiled.

In spite of the facility of proving the contrary, Ælian relates that, from the vernal to the autumnal equinox, the ram sleeps lying upon his right side, and upon his left from the autumnal equinox to the vernal.* In natural history this is a ridiculous tale, but it is an evident truth in the allegorical language of ancient astronomy.

It is related that in the army which Xerxes led against the Greeks a man gave birth to a hare; a prodigy which presaged the issue of that gigantic enterprise:† it was nothing more than the fable of the mountain bringing forth a mouse, improved, perhaps, by lessening the distance between the physical relations, and by a sarcastic allusion, through the hare, to an army of fugitives.

Was it intended that we should understand and believe, as a miracle, the story that *innumerable rats, by gnawing the bow-strings and the straps of the bucklers of Sennacherib's soldiers*, effected the deliverance of the King of Egypt, besieged by that leader?‡ Assuredly not: it was an expression used to designate an army incapable, from want of discipline and from negligence, of resisting the sudden attack of the Ethiopians, who arrived to the assistance of the King of Egypt, and which consequently fell almost entirely beneath their conquering sword. The priests, to whose caste the Egyptian king belonged, willingly favored a literal interpretation of the allegory, and the belief in

* Ælian, *De Nat. Anim.*, lib. x., cap. 18.
† Valer. Maxim., lib. i., cap. 6, § 10.
‡ Herodot., lib. ii., cap. 141.

it as a miracle, which they ascribed to their tutelar divinity, and which saved the national pride from the humiliation of acknowledging that the victory was due to the delivering allies. The tradition of this miraculous deliverance extended further than the fable which had given it birth; Bérosus, quoted by Josephus,* says that the Assyrian army was the victim of a scourge, a plague sent by Heaven, which at once struck down one hundred and eighty-five thousand men. Thus the Chaldean vanity covered with an unavoidable misfortune the opprobrium of a merited defeat. In the same manner, fictions which are purely moral, and unconnected with any fact, become historical traditions. I might quote the touching parable of the Samaritan assisting the wounded man, when neglected by the priest and the Levite. In the present day, in Palestine, it is looked upon not as a parable, but as an historical fact, and the scene of it was shown by the monks to the traveler Hasselquist.† There is, after all, in this nothing extraordinary nor repugnant to reason; and the heart, being interested, is tempted to believe in its reality. Less mindful of probabilities, a sage, wishing to perpetuate in a fable the maxim, "that it is not enough to sacrifice for the good of one's country riches, luxury, and pleasure, but more is necessary; and, although held back by the dearest affections, life itself should be devoted to it," he related that a frightful gulf, which nothing could fill up, suddenly opened in the middle of a city; the gods, when consulted, declared that it would only close on the most precious possessions of mankind being thrown into it. Gold, silver, and precious stones were instantly but vainly precipitated into it. At length a generous man, tearing

* Fl. Josephus, *Ant. Jud.*, lib. i., cap. 2.

† Hasselquist, *Voyage dans le Levant*, tome i., p. 184.

himself from a father and a wife, voluntarily plunged into it, and the abyss closed forever over him.

In spite of the evident improbability of the result, this fable, invented in Phrygia, or borrowed from a still more ancient civilization, has passed into history. The name of the hero was Anchurus, son of Midas,* one of the kings of the heroic times. But such is the charm attached to the marvelous, that Rome, some centuries afterward, appropriated to herself this fable, which, in place of a general precept, displays only an individual example. It was not because the Sabine chief, Metius Curtius,† who, when almost overcome in the midst of Rome, left his name to the marsh famed as the scene of his vigorous defense against the efforts of Romulus; it was not because a consul,‡ directed by the Senate, inclosed with a wall this marsh upon which the thunderbolt fell; but it was to perpetuate to the veneration of the people a patrician, on whom the name of Curtius was bestowed, as having nobly, in the same place, thrown himself, completely armed, into a gulf, which had miraculously opened, and not less miraculously closed, that Rome borrowed from Phrygia this fable of Anchurus, and introduced it into her own history.§

* *Parallels between Grecian and Roman Histories*, § 10. This work, falsely attributed to Plutarch, merits in general but little confidence, but its testimony, it seems to me, may be admitted when its object is to take from history those facts evidently fabulous, regarding which the ancient annalists of Rome do not agree. Callisthenes, quoted by Stobæus (Sermo xlviii.), also relates the devotion of the son of Midas, whom he calls Ægystheos.

† Such is the real origin of the name of the Lacus Curtius, according to the historian L. Calpurnius Piso, quoted by Varro (*De Lingua Latina*, lib. iv., cap. 32). See, also, Titus Liv., lib. i., cap. 12, 13.

‡ This was also the opinion of C. Ælius and of Q. Lutatius. (Varro, *loc. cit.*)

§ Varro (*loc. cit.*) also relates this tradition, but with the air of a man who hardly believes it, since he terms the hero who precipitated himself into the gulf a certain Curtius, "*quemdam Curtium.*"

The desire of increasing the reputation of a country has favored such plagiarisms. It is one object of our task to show how often imposture, assisting the vanity of a nation or a family in effacing a stain or adding an ornament, has given birth to the history of prodigies. From an immense number of instances, we shall select but one. It was constantly repeated that from the amours of the God of War sprung the founders of a city which was destined to be raised to the highest pitch of power by the favor of that god; and this story was credited, notwithstanding the tradition preserved by two grave historians, that the ferocious Aurelius violated his niece, Rea Silvia, who became the mother of Romulus and Remus.*

CHAPTER IV.

Real but rare Phenomena successfully held up as Prodigies proceeding from the intervention of a Divine Power, and believed because Men were ignorant that a Phenomenon could be local and periodical; because they had forgotten some natural Fact, which would at once have removed all Idea of the Marvelous; and, finally, because it was often dangerous to disabuse a deceived Multitude.—As the ancient Authors have adhered to Truth in this respect, they may be, also, depended upon in what they relate of magical Operations.

Although a great number of the wonders mentioned in the writings of the ancients may have derived importance from enthusiasm, ignorance, and credulity only, yet others, on the contrary, such as the fall of aerolites, have been recognized as real phenomena, and have not been rejected by enlightened physical science, although it has not always been able to explain them in a satisfactory manner. The natural history of our species details many ex-

* C. Licinius Macer et M. Octavius, quoted by Marcus Aurelius Victor, *De Origine Gentis Romanæ*, cap. 19.

traordinary events, the existence of which has been confirmed, but which some observers, whose observations have been circumscribed within their own narrow horizon, have regarded as chimerical.

Some of the most ancient Greek writers, such as Isigonus and Aristeus of Proconesus, have spoken of pigmies two feet and a half in height; of people constituting whole nations whose eyes were in their shoulders; of anthropophagi existing among the northern Scythians; and of a country, named Albania, in which were born men whose hair was white in childhood, and whose sight was exceedingly weak during the day, but became very strong in the night.

Aulus Gellius* treats these narrations as incredible fables; nevertheless, in the descriptions of the first two people, we recognize the Laplanders and the Samoyedes, although the diminutiveness of the one, and the manner in which the heads of the other are sunk between their shoulders, has been greatly exaggerated.† Marco Polo asserts that

* A. Gell., *Noct. Attic.*, lib. ix., cap. 4. Solinus, also (cap. 55), doubtless copying the authors whose testimony Aulus Gellius rejected, speaks of a nation the men of which had their eyes in their shoulders.

† Sir W. Raleigh in 1595, and Keymis in 1596, received from the inhabitants of Guiana the most positive assurances of the existence of a race of men whose eyes were placed upon their shoulders, and their mouths in their chests (*The Discovery of Guiana*, by Sir W. Raleigh), that is to say, as the French translator has reasonably suggested, that the necks of these men were extremely short, and their shoulders very high. P. Lafiteau (*The Manners and Customs of the American Savages*, &c., vol. i., p. 58, 62) observes, that the belief in the existence of such a race of men is equally entertained in different parts of America, and among the Tartars in the countries bordering on China. Like the Samoyedes in Asia, the Esquimaux and people observed by Weddel at Cape Horn, and in Terra del Fuego and the adjacent islands, have been the origin of this error respecting the natives of the North and South of America.—*A Voyage to the South Pole, performed in the Years* 1822–1824. *Geographical Journal.*

The natives of Bukaw, in Central Africa, are of so diminutive a stature as to accord completely with the ancient accounts of

some tribes of Tartars eat the corpses of men condemned to death.* In the inhabitants of Albania we can not fail to recognize the Albinos. The name of their supposed country is nothing more than the translation of the appellation bestowed on these singular beings from the whiteness of their hair and the fairness of their skin. Ctesias has frequently been accused of falsehood upon the authority of the Greeks, whose opinions and pretensions were somewhat inconsistent with his narrations. The pigmies that this author describes as living in the center of Asia, and having their bodies covered with long hair, recall to our recollection the Ainos of the Kourila Islands, who are four feet high, and covered with very long hair. Turner also saw, in Boutan, an individual of an exceedingly small race. The Cynocephali of Ctesias (Ælian, *De Nat. Anim.*, lib. iv., cap. 46) may possibly have been the Oceanic negroes, *Alphourians*, or *Haraforas* of Borneo and the Malay Islands, and the monkeys against which, according to the sacred books of the Hindoos, Rama made war in the Island of Ceylon.†

pigmies. The Bushmen in Southern Africa, also, may be regarded as a race of pigmies, very few male adults rising five feet in height, and the females not so much. The latter are delicately formed, and with remarkably small hands and feet.—Ed.

* *Peregrinatio Marci Pauli*, lib. i., cap. 64. *Mémoires de la Société de Géographie*, tome i., p. 361. The New Zealanders are confirmed and avowed cannibals; so much so, that, like the Massagetæ, described by Herodotus (lib. i., 216, they would eat their own parents. Dr. Martius informs us, that among the ancient Tupis of Brazil, when the chief (Pajé) despaired of a sick man's recovery, he ordered the poor wretch to be killed and eaten.—(*Lond. Geol. Journ.*, ii., 199.) The Battas of Sumatra are also undoubted cannibals.—Ed.

† Malte-Brun, *Mémoire sur l'Inde septentrionale d'Hérodote et de Ctesias*, &c. *Nouvelles Annales des Voyages*, tome ii., p. 335–357. In El Rami, an island near to Serendib (Ceylon), are to be seen men who are but a metre in height, and who speak an unintelligible language.—*Géographie d'Edrisi*, trad. fr., tome i., p. 75.

In the Argippeans, or "Bald Heads," of Herodotus, we recognize the Mongols, or Kalmucs, a nation, among whom the monks, or Ghelongs, have their heads closely shaved. When among this nation, Herodotus was told of a still more northern people, who slept six months of the year. He refused to believe this assertion, which was, after all, nothing more than an allusion to the day and night of the Polar regions.*

The ancients supposed that pigmies existed in Africa. A French traveler found some of them in the Tenda Maia, on the banks of the Rio Grande. "There," said he, "dwells a race of people remarkable for the diminutiveness of their figures and the weakness of their limbs."† If we descend from generalities to details, we still find that facts of an extraordinary nature, the recollection of which antiquity has preserved with so religious a fidelity, have been too often depreciated. "To suppose," says Larcher, "that Roxana should have had a child without a head, is an absurdity alone sufficient to throw discredit on Ctesias."‡ Every medical dictionary, however, would have shown Larcher that the birth of a headless, or *acephalous* child, is not so impossible.§

The respect to which the genius of Hippocrates is entitled has been, I suppose, the only reason why he has not been taxed with falsehood when he speaks of a disease prevalent among the Scythians which changed them into women.|| M. Jules Klaproth has seen men among the Nogais Tartars who, losing their beards, and their skin becoming wrin-

* Malte-Brun, *Memoire, &c.*, p. 372, 373. Herodotus.

† Mollien, *Voyage dans l'Interieur de l'Afrique, &c.* (Paris, 1840), tome ii., p. 210.

‡ *Traduction d'Hérodote*, 22e édit., tome vi., p. 266, note 35.

§ *Dict. des Sciences Médicales*, art. *Acephale*.

|| Hippocrat., *De Aere, Aquis, et Locis.*

kled, have all the appearance of old women; and such, among the ancient Scythians, were considered as old women, and no longer treated as men.*

The history of animals, such as the ancients have transmitted to us, is filled with details apparently chimerical, but which are sometimes only the consequence of a defective nomenclature. The name *Onocentaur*, which seems to designate a monster uniting the forms of a man and an ass, was given to a quadrumanus which runs sometimes on four paws, but at other times uses its fore paws only as hands, merely an immense monkey covered with gray hair, particularly on the lower part of the body.† It is only very recently that we have recognized the *Jerboa* in the description of those Libyan rats which walked upon their hind legs;‡ and detected in the *Erkoom*, or *Abbagumba* of Bruce, that African bird which bears a horn upon its fore-

* Jules Klaproth, *Voyage au Mont Caucase et en Géorgie, en* 1807, 1808. *Bibl. Univ. Littérature*, tome vi., p. 40.

† Ælian, *De Nat. Animal.*, lib. xvii. This description accords well with that of the *chimpanzee*, which, in much of its organization, bears a close resemblance to man, but differs from him in many important points. In the first place, the chimpanzee, like all the troglodyte ape tribe, is a *quadrumanus*, or four-handed animal; the jaws are much more developed than in the lowest tribes of the human species; the nasal bones are consolidated into one; the lumbar vertebræ are only four instead of five; and the length of the upper and the shortness of the lower extremities is a marked distinction. The circumstance, however, of the chimpanzee walking often erect, arming itself with weapons, and living in huts; the form of the head; the long, erect ears; and the hairy body, might easily have afforded the idea of the *onocentaur* described by Ælian.—Ed.

‡ Jerboa, *Dipus Ægypticus*, belongs to the *muridæ*, or mouse tribe, an extensive section of the *rodentia*, or gnawers. They have the head and body of a mouse, and a long tail, bushy at the end. Their fore legs are remarkably short, the hind proportionably longer than in any other known quadruped. Theophrastus adds, correctly, "they do not walk upon their fore feet, but use them as hands; and when they flee, they leap." It is found in India as well as in Egypt, and is eaten by one of the Hindoo tribes, called Kunjers.—Ed.

head.* But what was the *Catopleba*,† that animal of the wild sheep or bull species, said to be endowed, like the asp or basilisk, with a breath and glance of a deadly nature? It was the *Gnoo* described by Ælian; and the fact is placed beyond all doubt by the examination of the form of the head of one of those animals that killed Marius's soldiers.‡ The head of the gnoo is always declined; its eyes are small, but quick, and seem almost covered by the thick mane which grows upon its forehead. It is scarcely possible, unless it is very nearly approached, to perceive its glance, or to feel its breath; near enough, in fact, to hazard being struck by this timid, yet savage animal.§ The proverbial expression of danger to which one would, therefore, be exposed, has, by the love of the marvelous, been transformed into a physical phenomenon.

Cuvier‖ has pointed out this resemblance; and, in discussing the ancient accounts of animals regarded as fabulous, has expressed his opinion, that what we have found so incredible in them is only the result of incorrect descriptions. These descriptions may have been exact at first, but afterward vitiated by details imperfectly preserved by traditions, or badly translated in memoirs written

* N. Mouraviev, *Voyage dans la Turcomanie et à Khiva*, p. 224, 225.

† *Le Constitutionnel du 7 Septembre*, 1821.

‡ Catoblepus *Gorgon*, the brindled gnoo, an inhabitant of Southern Africa, in the country near the Orange River, where it is found in vast herds. The eyes, which are said to have so deadly a glance, are small, black, piercing, wild, and sinister, and placed very high in the forehead. In his general aspect, the animal is singularly grotesque, having the head of a bull, the neck and mane of a horse, and the slender, muscular legs of the antelope. "His snort," says Captain Harris, "resembling the roar of the lion, is repeated with energy and effect."—*Wild Sports of Southern Africa*, p. 27, plate iv.—Ed.

§ Athenæus, *Deip.* Ælian, *De Nat. Anim.*, *loc. cit.*

‖ *Analyse des Travaux de la Classe des Sciences de l'Institut de France en* 1815. *Magasin Encyclop.*, *année* 1816, tome i., p. 44.

in a foreign language, and probably abounding in figurative expressions. They may have been corrupted, also, by the inclination which the ancients indulged in for drawing men and animals closer together, and for connecting physical facts with causes of a moral nature. Geoffroy St. Hilaire saw the *little ring plover*, or dottrel,* free the crocodile from the insect suckers which attach themselves to the interior of its mouth exactly as the ancient Egyptians have described it. The moderns considered their recital as a fable, because it was supposed that there existed between the two animals a compact of mutual obligation, which could not be believed. It does not appear that the bird is ever imprudent enough to enter the mouth of the amphibious animal.

After these observations, may we not respectfully recommend to the learned the examination of those prodigies formerly exhibited to princes and people as omens of the future, as signs of the will of the gods, and undoubted tokens of their favor or their indignation? Natural history might thence be enriched by some interesting suggestions, and physiology find many rare instances which, by this examination, would become less problematical, and more easily connected with the general scheme of Nature. I shall, first of all, quote from the collection of Julius Obsequens. This author seems to have confined himself to the task of extracting from the registers to which the Roman pontiffs annually consigned the prodigies declared to them. In the unfortunately short fragment of his work which remains to us, we find, besides the mention of frequent showers of stones, the assertion, four times repeated, that the sterility of mules is not an immutable law of nature; also, the account of a spon-

* *Revue Encyclop., Mai,* 1828, p. 300, 301.

taneous human combustion, which, it was thought, might have been caused by the reflection of a burning-glass; and two examples of an extra-natural accouchement, the possibility of which has been discussed and undeniably proved in the present day.* Above all, we may mention the observations made upon an animal presenting a similar phenomenon to that of the young boy of Verneuil (Amédée Bissieux) in 1814.† In 1826, a young Chinese, without being much inconvenienced, had a headless fetus‡ attached to his chest and breast bone. In

* *Servio Flacco, Q. Calpurnio, Coss. Romæ puer solidus posterior naturæ parte genitus. Sergio Galba, M. Scauro, Coss.* Idem (puer) *posteriore naturâ solidus natus, qui, voce missa, expiravit.*—Julius Obsequens, *De Prodigiis.*

† *C. Valerio, M. Herennio, Coss. Maris Vituli cum exta demerentur, gemini vitelli in alvo ejus inventi.*—Julius Obsequens, *De Prodigiis.*

‡ *Séance de l'Académie de Paris*, 28 *Août*, 1826. These malformations and deviations from ordinary nature are still regarded as the result of supernatural agency, or as prodigies by the ignorant; but the researches of physiology have demonstrated that they are merely arrestments, or perversions of the ordinary process of development. In these cases, some organs may be either altogether absent, or defective in parts; or they may be redundant both in number and in parts. In all such cases, the individuals are termed monsters. The varieties of monstrosities are very numerous; but a few only require to be here noticed, in addition to those mentioned in the text. Thus, individuals have been born without arms, while the head and trunk are natural; others, in whom both hands and feet have been produced, without arms and legs, and the hands inserted upon the trunk, causing such a similitude to the seal as to give the name of *phocomeles* to such unfortunate beings. A man, aged sixty-two, of this formation, was exhibited in Paris in 1800. In other cases, both legs or both arms have been, as it were, sodered together, so as to form one member, giving the name *symoles* or *siren* to the person. In some instances, the eyes approach and unite, so as to give the appearance of a single eye only: hence the name *cyclopia*; but these and the *symoles* seldom live many hours after birth. Children have been born, and have lived for years, with two heads, and in one case the accessory head was planted on the summit of the natural head.* Many instances have occurred in which otherwise perfect individuals are born united together by

* This child was born at Bengal in 1753, lived four years, and died from the bite of a serpent.—*Phil. Trans.*, vol. lxxx., p. 296. *Hume's Comp. Anat.*

the body of a stag, captured by Otto Henri in the sixteenth century, there was found, if we may believe the physician, Jean Lange, a well-formed fetus. Did the frequency of these *heteradelphic* monsters (the expression used by M. Geoffroy de St. Hilaire to designate the union of two beings, one of which is not completely developed) formerly originate the belief in hermaphroditism, or the alternate change of sex in the hare and hyena? We may believe it, since a single observation of this kind, made upon the *Mus caspium* (probably the marten), has been also converted into a general fact.* It would not be uninteresting to ascertain whether martens, hyenas, and hares present this singularity more frequently than other animals.

In the fabulous times of Greece, Iphis and Cænis were both seen suddenly to change their sex by the beneficence of a divinity. The ancients have related similar metamorphoses in less uncertain periods. Pliny quotes four instances, and relates one as having been confirmed by himself.† Accurate observations have proved to the moderns, that in

some part of their bodies, but free in all the others. Two remarkable cases of this description are well known. One was of two sisters, who were born united in Hungary, in 1701. They were christened Helen and Judith, and lived to the age of twenty-two, when Helen was attacked with disease of the lungs; soon after which, Judith, who was in perfect health, also became ill; and both expired at the same instant. The second case was that of the Siamese twins, who were exhibited in London in 1829–30. They were fine-looking boys of twelve years of age, but united by a production of the navel of each. The writer of this note saw them, and found them intelligent boys. He is uncertain whether they are alive. In all such cases, the formation of twins was the intention of nature, had not disturbing causes interfered with the development. In no instance has the monstrosity been of such a description as to place the being out of the natural series to which it belongs; and in every instance, however great the deviation, the species to which the individual belonged has been readily recognized.—Ed.

* Ælian, *De Nat. Anim.*, lib. xviii., cap. 18.

† Plin., *Hist. Nat.*, lib. vii., cap. 4.

some human beings the development of the sexual organs is so tardy as to offer the appearance of such a transformation.

M. Geoffroy de St. Hilaire has described a polydactyle horse as having fingers separated by membranes;* yet, when ancient authors have spoken of horses, the feet of which bore some resemblance to the hands and feet of a man, they have been accused of imposture. The history of inanimate bodies is not less rich in singular facts, which the ancients considered as prodigies, and which the moderns long regarded as fables.

Upon Mount Eryx, in Sicily, the altar of Venus was situated in the open air,† and upon it burned, night and day, an unextinguishable flame, without wood, coal, or cinders, and in defiance of the cold, the rain, and the dew. Bayle,‡ one of those philosophers who has rendered the greatest service to the human intellect, regards this as a fable. He would not have received with more indulgence the account which Philostratus§ gives of a cavern observed by Apollonius near Paraca, in India, whence continually issued a sacred flame of a leaden color, emitting neither odor nor smoke. Nevertheless, nature has kindled similar fires in other places. The fires of Pietramala, in Tuscany, are, according to Sir Humphrey Davy, owing to an escape of carbureted hydrogen gas.‖ The perpetual fires admired at the Atisch-gah (place of fire), near Bakhou, in Georgia,¶ are fed by the naphtha with which the soil is impregnated. These are

* *Séance de l'Académie de Paris*, 13 *Août*, 1807.

† Ælian, *Var. Hist.*, lib. x., cap. 50.

‡ Bayle, *Dictionnaire Historique et Critique*, art. *Egnatia*, note D.

§ Philostrat., *Vit. Apollon.*, lib. iii., cap. 3.

‖ *Journal de Pharmacie, année* 1815, p. 520.

¶ N. Mouraviev, *Voyage dans la Turcomanie et à Khiva*, p. 224 225.

sacred fires, and the penitent Hindoos have surrounded theirs with an inclosure of cells, similar to those raised round the fire of Mount Eryx, the temple of Venus. In Hungary, in the salt-mine of Szalina, in the circle of Marmarosch,* a strong current of air, rushing from a gallery, ignites spontaneously. It is carbureted hydrogen gas, similar to that employed in the present day for lighting our streets. For this purpose, it has been profitably applied, and with a success which apparently will prove durable, since the gaseous effusion is no less uniform than abundant. In the province of Xen-si, in China, several wells emit volumes of carbureted hydrogen, which is applied by the inhabitants to the common uses of life.† Phenomena, similar to those we have described, would, at the disposal of thaumaturges, become powerful auxiliaries to superstition. The ignorant have been led to believe that water was metamorphosed into blood; that the heavens rained blood; and that the snow lost its natural color, and appeared stained with blood; and even that flour bread has offered a blood-imbued nourishment to man, from which severe diseases arose. These are the facts we find in ancient history, and even in some modern writings, almost of our own times.

In the spring of the year 1825, the waters of the Lake of Morat presented an appearance, in many places, of being colored with blood, and popular attention was directed toward this strange appearance. M. de Candolle,‡ however, proved that the phenomenon was caused by the development of myriads of those creatures which are called Oscel-

* *Le Constitutionnel du 7 Septembre*, 1826.

† *Extract from the Account of Vanhoorn and Van Kampen.* 1670. *Séance de l'Académie des Sciences*, 5 *Décembre*, 1836.

‡ Professor de Candolle, the most distinguished botanist of the present period.—Ed.

latoria *rubescens* (*purple conferva* of Fuller), and which form the link in the chain between animal and vegetable beings.* The phenomenon occurs every spring, and the fishermen then say the lake is in flower.† M. Ehrenberg, when sailing on the Red Sea, discovered that the color of the water is occasioned by a similar circumstance.‡ It would not, therefore, be impossible for a naturalist, were he to study the mode of reproduction of the oscellatoria, to convert the waters of a pond, or a portion of a river or running stream, into apparent blood.

We are acquainted with many natural causes which explain those stains observed on stones and the walls of buildings, which might easily be imagined to be caused by a shower of blood. The phenomenon of red snow, less often remarked, although as common as the other apparent blood stains, yet results from many natural causes. Naturalists have attributed it sometimes to the pollen powder of a species of pine; sometimes to small insects, or minute plants, which attach themselves also to the surface of certain marbles,§ and to those calcareous pebbles which are found on the seashore.‖

* *Revue Encyclopédique*, tome xxxiii., p. 676.

† The phenomenon, on the occasion referred to, continued for several months. In the advanced period of the day, the lake appeared covered at a little distance from its banks with long, parallel, red lines, which were driven by the wind into the small bays, and, being collected round the weeds, formed a spume of a beautiful color, varying from greenish black to lively red. A putrid odor exhaled from the shallow places. The flesh of the pike and the perch became as red as if they had been fed on madder, and the small fish died.—Ed.

‡ *Revue Encyclopédique*, tome xxxiii., p. 783; and *Nouvelles Annales des Voyages*, 2d edit., tome vi., p. 383.

§ See, on this subject, the interesting memoir of M. le Professeur Agardh, *Bulletin de la Société de Géographie*, vol. vi., p. 209–219; and the Mémoire de M. Turpin, on the red substance which is found on the surface of white marbles, *Académie des Sciences, séance du 12 Décembre*, 1836.

‖ The account of the red snow which Captain Ross observed

In the environs of Padua, in 1819, the polenta prepared with the flour of maize appeared covered with numerous little red spots, which were soon considered, in the eyes of the superstitious, as drops of blood. The phenomenon appeared many successive days, although pious terror sought, by fasts, prayers, masses, and even exorcisms, to bring it to a termination. Those feelings, excited to an almost dangerous degree, were at length calmed by a naturalist,* who proved that the red spots were but the results of a mold, until then unobserved.†

in the Arctic region, and the specimen of the substance which that officer brought home, excited in no ordinary degree the attention of the naturalists, botanists, and chemists of Europe, and many theories were formed to explain its nature. The most satisfactory opinion was given by Professor Agardh, in a memoir published in the twelfth volume of the *Nova Acta Naturæ Curiosorum*, p. 737. The professor first notices a shower resembling sulphur that fell near Lund, and which was found to be the farina of the fir; and two showers of apparent blood; more especially one which fell at Shonen in 1711, occasioned by insects, but which the Bishop of Swedberg pronounced to be a miraculous intervention of the Divinity, and not a natural event. He then mentions most of the parts of Europe where red snow has been observed, and also the opinions of botanists respecting it; especially that of Baron Wrangel, that it was a species of lichen, which he termed Lepraria *kermesina*; but Dr. Agardh regarded it to be one of the *algæ*, and named it Protococcus *nivalis*, or *kermesinus*. He examined it under the microscope, and found that it consisted of minute, blood-red, opaque particles, perfectly round and sessile; they were both aggregated, forming little clusters, and solitary. He considers that there is a great affinity between it and the infusory animals, beings which seem to be the link between the animal and the vegetable kingdom, and which pass into each other, and for the existence of which the agency of light and heat is essential. The protococcus has never been seen except on white bodies. It has been asserted by naturalists that it is precipitated from the atmosphere; but this opinion has not been made out. Agardh supposes that the melting of the snow, and the vivifying power of its light, contribute to the production of this plant; but I may remark, that although these powers may call the plant into existence when its spawn or germs are present, yet we are still in the dark as to whence it is derived. An excellent figure and account of the plant is contained in Dr. Greville's *Scottish Cryptogamic Flora*, vol. iv., p. 231.—Ed.

* *Revue Encyclopédique*, p. 144, 145.

† Blood spots, as these were termed, were first observed during

The grain of the bearded darnel (*Lolium temulentum*), mixed with wheat, gives a reddish tinge to bread baked on the ashes; and if this food be eaten, it occasions violent giddiness. Thus, in all the examples quoted, the natural effect being satisfactorily made out, the marvelous disappears, and with it falls the accusation of imposture or ridiculous credulity with which ancient authors are so frequently accused.

On the surface of the hot mineral springs of Baden, in Germany, and on the waters of Ischia, an island in the kingdom of Naples, the zoogène is gathered, a singular substance, resembling human flesh and skin; and which, after undergoing the process of distillation, produces the same results as animal matter. M. Gimbernat* has seen rocks covered with this substance near the Castle of Lépoména, and in the valleys of Sinigaglia and Ne-

the great general plague in the sixth century, and again during the plague of the years 786 and 959. "The same spots, also, in the years 1500 to 1503, threw the faithful into great consternation, because, as on the former occasions, they fancied they recognized in them the form of the cross." Crusius, a writer of that period, even gives the names of many on whose clothes crosses were visible. In the vicinity of Biberach, on the Rhine, a miller's lad, who ventured to make rude sport of those supposed markings of the cross, was seized and burned.* These spots, on the last-mentioned occasion, spread through Germany and France. They were principally red, but they varied in color. They appeared on the roofs of houses, on clothes (whence the name *Lepra vestuum*), on the veils and neckerchiefs of women, on household utensils, and even on meat in larders. George Agricola, a naturalist who lived at the time, recognized them as lichens, and regarded their appearance as an indication of extensive disease.† At so late a period as 1819, a red coloring mold appeared on vegetable and animal substances in the province of Padua, which excited superstitious apprehensions among the people.‡—Ed

* *Journal de Pharmacie*, 1821, p. 196.

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* Hecker's *Epidemics of the Middle Ages*, trans. 1844, p. 205.

† Agricola, *De Peste*, 1554, lib. i., p. 45.

‡ Vincenzo Sette. *Sull' Arrosimento Straordinario*, &c., quoted by Hecker, *loc. cit.*, p. 206, note.

gropont.* This affords an explanation of those showers of human flesh which held a place among the crowd of the prodigies of antiquity, and which excited an excusable dread in those who beheld in them an announcement of the decrees of fate, or threatenings of the Divinity, and who would impute to divine intervention every rare and opportune event.†

In 1572, some time after the massacre of St. Bartholomew, a hawthorn blossomed in the Cimetière des Innocents;‡ fanaticism saw in this pretended prodigy a convincing proof of the approbation of Heaven of the destruction of the Protestants.

When the soldiers of Alexander were digging wells in the vicinity of the Oxus, they remarked that a spring flowed in the tent of the king; as they had not at first perceived the water, they pretended it had arisen suddenly, and was a gift of the gods; and Alexander was willing they should believe it to be a miracle.§

The same wonders have been displayed in very different times and places. In 1724, the Chinese troops, pursuing in Mongolia an army of rebels, suffered severely from thirst. They discovered a spring near the camp, and cried out that it had issued miraculously from the ground. This favor was attributed to the spirit of the Blue Sea,‖ which lay in the vicinity of the spot where the miracle

* It is most probably an hæmatococcus, one of the zoocarps, peculiar organized bodies variously classed by botanists and zoologists as *animals* or *plants*, owing to the difficulty of determining to which division of the organic kingdom of nature they belong.—Ed.

† There can be no doubt that every event in the system of nature is under the direction of the Deity; but this does not set aside the agency of secondary causes, which are continually operating, and by whose influence we explain both the ordinary phenomena of nature, and rare and opportune events.—Ed.

‡ Thuan, *Hist.*, lib. lii., § 10. § Q. Curt., lib. vii., chap. 10.

‖ Timkowski, *Voyage à Pekin*, tome ii., p. 277.

was observed, and the emperor ordered a monument to be raised to record the event.

The Emperor Isaac Comnenus, being overtaken by a violent storm, took shelter under a beech-tree. The noise of the thunder alarmed him; he therefore changed his place, and immediately afterward the beech was uprooted by the violence of the wind. The preservation of the emperor's life passed for a miracle, owing to the intercession of St. Thecla,* whose day is even now observed by the Christians, and to whom Isaac Comnenus dedicated a church.†

The rain which so opportunely succored Marcus Aurelius in the war against the Marcomans was attributed by the Christians to the efficacy of their prayers; by Marcus Aurelius to the favor of Jupiter; by some polytheists to an Egyptian magician; and by others to the astrologer Julianus; but all concurred in regarding it as a celestial prodigy.

When Thrasybulus came, at the head of the exiled Athenians, to deliver his country from the yoke of the thirty tyrants,‡ a fiery meteor illumined his path: it was regarded as a divine fire, sent by the gods to guide him in the darkness of the night, and to conduct him by roads unknown to his enemies.

The falling of aerolites has so frequently happened, that it may concur with the moment of a combat; and such a coincidence probably gave rise to the fiction that Jupiter rained stones on the enemies of Hercules.§ Were we to credit the Arabs, a similar shower crushed, at the foot of the walls of

* St. Thecla was a native of Isauria. She was well educated, and is renowned for her eloquence, which she is said to have received from St. Paul, by whom she was converted from paganism, and on whom she attended in several of his apostolical journeys.—*Butler's Lives of Saints*, &c., p. 498.—Ed.

† Anna Comnena, *Hist. de l'Empereur Alexis Comnène*, liv. iii., chap. 6.

‡ Clement. Alex., *Stromat.*, lib. i.

§ This fable may also be explained by supposing it a specimen

Mecca, the Ethiopians, who were the profane besiegers of the sacred city.* It is also related that Basil, chief of the Bogomiles, returning in the evening from the palace of the emperor† to his cell, was assailed by a shower of stones, not any of which were thrown by a human hand, and that the phenomenon was accompanied by a violent earthquake. The enemies of Basil deemed this phenomenon a supernatural punishment upon the heretical monk.

The inhabitants of Nantes, at the time when their country was under subjection to the arms of Julius Cæsar, took refuge in the marshes, which form at some distance the river of Bologne. Their asylum enlarged, and became a town, known under the name of Herbatilicum. In 534, the soil on which it was built, having been undermined by water, sank into a lake, which swallowed up the town ; one part of it, situated on high ground, alone remained, and is at this day the village of Herbauge. Hagiographers promulgated as a miracle this disaster, which is so naturally explained ; and we are told that St. Martin, who was sent by St. Felix, bishop of Nantes, to convert the inhabitants of Herbatilicum, finding them immovable in the faith of their fathers, and in consequence of the reception he met with, departed in despair ; the town immediately was ingulfed, and a lake usurped its place, presenting an enduring monument of the chastisement inflicted on unbelief.‡

of the figurative style. The pebbles which cover the plain where the battle was fought would furnish abundant ammunition to the warriors armed with slings, who, under the auspices of their national god, the Tirynthian Hercules, invaded the south of Gaul, and fought the natives.

* Bruce, *Travels to Discover the Source of the Nile*, vol. ii., p. 446, 447.

† Anna Comnena, *Histoire de l'Empereur Alexis Comnène*, liv. xv., chap. 9.

‡ *Actes de St. Martin, Abbé de Vertou*, in the *Preuves de l'His-*

In the Bay of Douarnanez similar marine ruins may be observed. These, says ancient tradition, are the remains of the town of Is, which was swallowed up by the sea in the commencement of the fifth century. Gralon, king of the country, alone saved himself; and the impression made on the rock by the hoof of the horse that carried him away is still pointed out.* Inundation is a local phenomenon, which can not be a matter of surprise; other ruins on the same coast attest the ravages of Nature; but it has ever been, in all ages, the inclination of man to take advantage of natural disasters, and to announce them as preternatural events intended for the benefit of mortality.

The ignorance of the fact that certain phenomena are peculiar to certain localities, has caused some events to be either revered as supernatural interpositions, or rejected as impossibilities. Among such are pretended showers of nutritive substances. We are told that, in 1824 and in 1828, a shower of this kind fell in a district of Persia, and so abundant was the rain that, in some places, it lay five or six inches deep on the ground. The supposed fallen substance, however, was a well-known species of lichen, which the cattle and the sheep eat up with great avidity, and which was also converted into very eatable bread.† How many natural occurrences have thus passed for miracles.

If the multitude have often regarded as prodigies some local phenomena, the periodical return of which they did not reckon upon, ignorance, also, or forgetfulness, has often obscured the knowledge of the natural facts, even to the priests themselves,

toire de Bretagne de Dom Morice, tome i., p. 196. See, also, *La Vie de St. Martin*, Oct. 24; and *La Vie de St. Filbert*, August 20.

* Cambray, *Voyage dans le Département de Finistère*, tome ii., p. 221–224.

† *Séance de l'Académie des Sciences*, Aug. 4, 1826.

who proclaimed them as prodigies. The following example affords a proof of this remark. The Eleans worshiped Jupiter Apomyios (the fly-catcher), and, at the commencement of the Olympic games, a sacrifice to the god was performed for the banishment of all the flies. Hercules, in the place where a temple was afterward raised to him, invoked the god Myagrus* (also a fly-catcher), on which account, the story adds, the flies were never after seen in that temple.† But, independent of the use of secret means, such as certain fumigations, which drive away flies, the disappearance of these insects was only a natural consequence of the profound obscurity which always reigned in heathen sanctuaries. In order to discover whether the prodigy bestowed the surname on the god, or whether the surname of the god was the origin of the pretended prodigy, let us examine where the worship of the fly-catching god commenced.

In Syria and in Phœnicia the god Belzebuth, or Baalzebud,‡ *the god, or lord of the flies*, was worshiped; and, at the approach of Pluto, or Hercules, the Serpent, the constellation which rises in October, all the flies disappeared. But such a coincidence could only occur, and be consecrated by religion, in a country where the presence of the flies amounts almost to a plague, and where the revolution of the seasons regulates their periodical return.

* Myagrus, or Myodes, was an Egyptian demi-god.—Ed.

† Solinus, cap. i. Plin., *Hist. Nat.*, lib. x., cap. 28; and lib. xxix., cap. 6.

‡ The name of Baal-zebud may be traced in that of Bal-zub, under which the ancient Irish worshiped the sun as the God of Death; that is, the sun of the inferior signs; the same as Serapis and Pluto (C. Higgins on the *Celtic Druids*, p. 119). It is difficult now to prove a common origin between the divinities of Ireland and those of Phœnicia. Baal-zebud was in Phœnicia the star of the autumnal equinox, the god whose annual arrival put an end to the plague of flies.

The inhabitants of Cyrene made sacrifices to the god Achro to be delivered from flies.* This draws us nearer to the point we desire to arrive at. It was from the platform of Meroe,† far from the formidable Tsaltsalya, that the shepherds took flight to await the autumnal equinox, the desired termination of his six months' reign. They must have worshiped, in this conqueror of flies, the constellation of the equinox, afterward represented by Serrapis, Pluto, and the Serpent. In the countries where this divinity was adored, as changing the face of the earth and the destinies of men, the lively impression made on those who had frequently witnessed the plague, over which he triumphed, concurred to extend his worship from Cyrenaica into Syria among the Phœnicians.

The Romans and the Greeks, perhaps, also borrowed this superstition; but it is remarkable that Greece attached itself only to African traditions. The Arcadians of Heræa joined the worship of the demi-god Myagrus, which they had acquired from Africa, to that of Minerva. Their tradition reported, indeed, that Minerva was born in Arcadia; but it was on the margin of the fountain Tritonides that we are told the same wonders were displayed‡ as those which assigned the Lake, or River Tritonis,

* Plin., *Hist. Nat.*

† Modern geographers have differed in fixing the locality of Meroe; but M. Cailloux has settled the question. He describes it to be that part of Africa in the vicinity of the Nile, which is formed into a kind of peninsula by the Nile itself, not its branches Astapus and Astaboras, as formerly supposed. The river bends in such a manner as nearly to insulate a space so large, that to travel round it requires many weeks, while across its neck is only one day's journey. Its inhabitants resembled the Egyptians in their refinement and their architecture; indeed, Meroe was supposed to have been the cradle of most of the religious institutions of the Egyptians.—Ed.

‡ Pausanias, *Arcad.*, cap. xxvi. The Bœotians, also, of Alalcomenæ show in their country a river Triton, on the banks of which they placed the birth of Minerva.—Pausanias, *Bœot.*, cap. xxxiii.

in Libya, as having the honor of being the birthplace of Minerva. An Arcadian colony, which established itself among those hills on which, at a future period, Rome was built, carried there the worship of Hercules. If Numa owes to the Tyrrhenians the knowledge which induced him to consecrate at Rome, under the name of Janus,* a temple to the planetary god of Meroe,† it was most probably communicated by the companions of Evander, who, long before his time, had raised an altar on the banks of the Tiber to the annual liberator of the Rivers Astapus and Astaboras.

When the worship of this local divinity was thus propagated among a people to whom it must have been foreign, the prodigy attributed to him arose naturally from the interpretation of his name, of the origin of which they were ignorant. Analogous inventions have at all times been numerous, and especially when they were often fostered by the exhibition of the emblems appropriated to the name which the god bore, and regarding which the supposed prodigy furnished a plausible explanation.

The vulgar, for whose adoration prodigies are presented, believe, without reflecting on the nature of their belief; the man of education submits, from habit, to the established belief; the endeavors of the priest is to make it respected, and to increase his own influence.‡

* Janus was merely a symbolical representation of the year. Some of his statues held the number 300 in one hand and 65 in the other.—Ed.

† Lenglet, *Introduction à l'Histoire*, p. 19.

‡ It is curious to observe superstition holding her sway over the minds of the ignorant long after the sun of Christianity dispelled the shades of idolatry and shed its benign influence upon this island. Kirk, in his Essay on Fairies, seriously informs us that these beings changed their places of abode at each quarter of the year; "and at such revolution of time," says he, "*seers, or men of the second sight*, have very terrifying encounters with them, even on the high-ways; who, therefore, usually shun to travel abroad at these four seasons of the year, and thereby have made

Miners who have died from suffocation were at one time thought to have been killed by the *de-*

it a custom to this day, among the Scotish-Irish, to keep church duly every first Sunday of the quarter to sain or hallow themselves, their corne and cattell, from the shots and stealth of these wandering tribes; and many of these superstitious people will not be seen in church againe till the next quarter begin, as if no duty were to be learned or done by them, but all the use of worship and sermons were to save them from these arrows that fly in the dark."* The popular creed, also, at the same period, and almost onward to the present day, was burdened with the belief in *omens* and *auguries*, while the common people nourished as sacred the most absurd superstitions and observances. Reginald Scot, who wrote a work entitled "*Discoverie of Witchcraft*," says, "Amongst us there be manie women and effeminat men (manie papists alwaies, as by their superstition may appeare) that make great divinations upon the shedding of salt, wine, &c.; and for the observation of dates and horses, use as great witchcraft as in anie thing. For if one chance to take a fall from a horse, either in a slipperie or in a stumbling waie, he will note the daie and hour, and count the time unlucky for a journie. Otherwise he that receiveth a mischance will consider whether he met with a cat, or a hare, where he went first out of his doores in the morning; or stumbled not at the threshold at his going out; or put not on his shirt the wrong side outwards, or his left shoe on his right foote."* Reginald's namesake, Sir Walter Scott, informs us that supernatural appearances are "still believed to announce death to the ancient Highland family of MacLean of Lochbuy. The spirit of an ancestor slain in battle is heard to gallop along a stony bank, and then to ride thrice around the family residence, ringing his fairy bridle, and thus intimating the approaching calamity."‡ Sir Walter refers to this omen in the *Lady of the Lake:*

> "Sounds, too, had come in midnight blast,
> Of charging steeds, careering fast
> Along Benharrow's shingly side,
> Where mortal horseman ne'er might ride."

The *tomb-fires* of the Scandinavians, the *tan-we* of the Welsh, were also omens announcing death; and it was generally believed that when a freeholder was about to die, a meteor was always seen either to shoot over and vanish on his estate, or to gleam with a lurid light over the family burying-ground. Mrs. Grant, in her Essays on the superstitions of the Highlanders of Scotland, relates a singular instance of the belief of a learned and pious clergyman in the predictive property of these *tomb-fires*, well worthy of perusal.§ The apparition of the "corpse candle," canwyll corph, implicitly believed in Wales, is a light which is sup-

* Kirk's *Essays on Fairies*, p. 2, 3.
† Scot's *Discoverie of Witchcraft*, p. 203.
‡ *Lady of the Lake*, p. 106.
§ *Vide* Grant's *Essays*, &c., vol. i., p. 259.

mons of the mine, who were infernal spirits, guardians of treasures hidden in the depths of the earth, and who destroyed all covetous men for endeavoring to penetrate to their asylum. In these ancient and universal traditions we recognize the effects of exhalations and noxious gases which are disengaged in subterraneous places, particularly in mines. In order to preserve the miners from their deadly influence, science has investigated their nature, and, by thus acquiring a control over them, has dissipated the phantoms which were created by ignorance and terror. But could this have been attempted with success had science been able only to point out the evil without having discovered the remedy? Could science have dared to promulgate its beneficial discovery when princes, who committed their gold to the bosom of the earth, beheld in those superstitious terrors the surest safeguard of their hidden treasures? or, even, so long as the miners referred to the influence of the *demons of the mine*, not only the real dangers that surrounded them, but also attributed to them their own awkwardness, their faults, and their misconduct in their subterranean dwellings?*

To science it still belongs to denounce and to eradicate such universal errors, which may be re-

posed to pass from the habitation of a person about to die to the church-yard, precisely along the path which the funeral must afterward proceed. It is believed to be a mark of divine beneficence conferred upon the Welsh, from the prayers of St David, who, on his death-bed, obtained a promise that none of his flock should die without having previous intimation of his death. The Welsh have implicit belief in the apparition; they give the name "canwyll corph," also, to the inflammable gas fired by electricity in boggy grounds, and which they believe indicates the death of a Welshman in some distant country. They have also credulity sufficient to give credence to another apparition, which they call *teulu*, a kind of phantasmagoria representation of the funeral.* —Ed.　　* J. Tollins, *Epist. Itiner.*, p. 96, 97.

* Meyrick's *History and Antiquities of Cardiganshire*, 4to, p. 123.

garded as real epidemics, by which multitudes are duped, although without a deceiver. At one time it was believed, in some parts of Italy, that the accouchement of women was always accompanied by the birth of monsters, an event which was believed so common, that these monsters were designated "*Brothers of the Lombards*, or *Salernitans*;"* and they went so far as to believe that, in the patrician families, they were noble animals, such as eagles and hawks; and, in the plebeian families, the baser animals, such as lizards and toads. This belief gave rise to frequent accusations of sorcery, productive of atrocious condemnations; and at that time any learned man would have shared the same fate as the victims whom he might have desired to save, if, in opposing the general extravagance of opinion, he had unveiled some ill-observed or incorrectly reported phenomenon as the orign of it, and thus exposed the deceptions inspired by folly, or interest, or the spirit of revenge.†

* Fromann, *Tractatus de Fascinatione*, p. 622, 623, 626, *Frater Lombardorum vel Salernitarum*. Rabelais probably alluded to this absurd belief in the prodigies described as having preceded the birth of Pantagruel (liv. ii., chap. 2), prodigies which have always been regarded as deserving a place among those extravagant fictions which are sometimes destined to serve as passports to bold truths.

† In the commencement of the seventeenth century, a French priest having been, by an unlucky chance, attacked by one of the lower animals in a manner too disgusting to relate, was accused of sorcery by his own brother. On the outcry of the whole town, struck with horror, he was taken before the tribunal of justice, and constrained, by the pains of the torture, to confess an imaginary crime, for which he was condemned, and suffered an ignominious death. Could a well-informed man, had he then related what Aristotle had written twenty centuries before regarding the charge, have ended the scandal, and terminated an absurd criminal prosecution, or prevented its abominable issue? A man enlightened, amid a blind population, would he not have been called upon to exculpate himself as a favorer of the crime, and as an accomplice of the sorcery? Such a result might be suspected, when we are told that the illusion was entertained even by the celebrated Aubigné, one of the most enlightened men of the time in which he lived.

To explain many tales of sorcery, and elucidate many features in mythology, it is only necessary to observe the deviations from the usual course of Nature among tame animals, and among those in a state of confinement, and detached from the society of their fellows.

But it would have been in vain for the voice of science to have raised itself to explain a phenomenon in which enthusiasm beheld a prodigy, especially when men who had the power of creating belief had an interest in persuading the multitude that the prodigy was real. The priesthood would have menaced him in the name of that divinity whose rights he might be accused of contemning. Eresicthon, so says an ancient fable, used his ax in cutting down a wood consecrated to Ceres. Some time afterward he was attacked by the disease named Bulimia,* a malady which was as well known in the times of the ancients as in our own. He suffered insatiable hunger, which he attempted in vain to satisfy. His wealth soon disappeared, all his resources failed, he sank under his malady, and died of inanition. The priests of Ceres consequently triumphed; and a fable, invented by them, records that the impious Eresicthon perished mis-

* The quantity of food consumed in some of the well-authenticated cases of this extraordinary disease is almost incredible. Among others, Dr. Cochrane, of Liverpool, has recorded the case of a man, placed under his own personal inspection, who, in one day, consumed four pounds of raw cow's udder, ten pounds of raw beef, and two pounds of candles, besides five bottles of porter. The disease has appeared in persons of all ages; and many of them seemed to be, in every other respect, in good health. They, however, have usually soon died, and not unfrequently of apparent inanition.* The unfortunate Thessalian, mentioned in the text, is said to have been driven to devour his own limbs. Ovid extends the tradition, and completely destroys its probability, by relating that the daughter of Eresicthon could transform herself into any animal she pleased; a power which she employed for her father's benefit.—*Metamorp.*, f. xviii.—Ed.

* *Medical and Physical Journal*, vol. iii.

erably, the devoted victim of the vengeance of the goddess whose gifts are bestowed for the nourishment of the human species.*

Such were the nature of those accidents which the priests knew how to turn to advantage, when circumstances threw them in their way; nor did they allow a single phenomenon of this kind to escape their investigation. The Roman pontiffs, however, did not introduce the practice of inserting in registers the miracles which were every year brought to light; they borrowed the custom from the Etruscan priests, whose sacred books are frequently quoted by Lydus;† and it is more than probable that this usage has existed in all the ancient temples. With whatever intention they may have been at first established, such records must, in the end, have afforded very extensive information. It is difficult to collect a series of philosophical observations without even involuntarily drawing comparisons.

For instance, it would be interesting to discover what is reasonable or scientific in the judgment given by a priest or an augur, on the results of a miracle, or the expiatory ceremonies prescribed for displaying them. Often, without doubt, it was only meant to disturb, or to reassure the alarmed imagination; often ignorance and fear blindly obeyed a superstitious custom, however stupid or ferocious. But, as Democritus informs us, the condition of the entrails of the animals sacrificed would furnish to a new colony, disembarked on an unknown shore, a probable idea of the nature of the soil and the climate on which their future welfare depended.‡

* Modern superstition equals in many respects the ancient. Fromann (*Tract. de Fascinatione*, p. 6, 13) quotes instances of Bulimia, which might be regarded as examples of persons possessed by a devil.

† Lydus, *De Ostentis*.

‡ There can be no doubt that valuable information on the score

The inspection of the liver of the victims, an operation which afterward served as a basis for many predictions, had originally no other object. If they found it in all victims presenting an unhealthy character, they concluded there was little salubrity, either in the waters or the pastures. The Romans were also regulated by similar indications in determining the foundations of towns and the position of fortified camps.* Such examples prove that some of the religious practices of the ancients emanated from positive science, founded on long observation; and in these we may still discover instructive vestiges and real philosophy.

We have now reason for believing that magical performances were much more useful to the priests than prodigies, since, far from happening suddenly, the precise moment, the extent, and the nature of the results were entirely dependent on the will of man. The apparent miracles related by the ancients explain themselves naturally; their accounts of them can not, therefore, be regarded as falsehoods; and wherefore should their recitals be doubted, when they treat of magical performances, which also admit of explanations not less satisfactory? It can only be believed that the priests possessed and kept secret the knowledge necessary to operate these wonders. Let us not overlook the rule by which our belief may be regulated; namely, the measures of favorable or of contrary probabilities. Is it likely that, in every country, men, whose ve-

of health might occasionally be obtained from such inspections; yet animals, like men, become naturalized to the localities in which they have long resided, and do not suffer from their insalubrity as animals or men newly transported to them. More accurate information can be obtained from observing the description of animals, reptiles, and insects peculiar to the country, and particularly the plants indigenous to the soil.—Ed.

* Vitruvius, *De Architect.*, lib. i., cap. 4. Cicer., *De Divin.*, lib. i., cap. 57.

racity we have established on points which have been powerfully attacked, should relate so many absurd wonders, and yet have only for their object to impose upon the ignorant? Is it not more probable that the recitals are founded on truth, and that these wonders have been affected by means acquired from the study of the occult sciences, which were shut up in their temples? And does not this likelihood approach to certainty, if we admit that careful observation and a patient comparison of all prodigies and extraordinary facts would endow the priests with a considerable fund of practical knowledge, and that from these researches magic may have originated?

CHAPTER V.

Magic.—Antiquity and Universality of the Belief in Magic.—Its Operations attributed equally to the Principle of Evil and of Good.—It was not considered by the Ancients to imply the Subversion of the Order of Nature.—Its Truth was not disputed, even when emanating from the Disciples of an inimical Religion.

Time, the only power which refuses to regard any thing as invariable, sports with creeds, as it does with facts: it passes on; and, in leaving traces on its steps of the vestiges of obsolete opinions, we are astonished to find expressions once nearly synonymous now differing very widely with respect to the ideas which they are intended to convey.

During a long period of time the world was governed by magic: an art which, as the sublimity of its origin was credited, appeared little less than a participation in the powers of Divinity, and which, at the commencement of our era, was even admired by religious philosophers "as the science

which unveils the operations of Nature,* and leads to the contemplation of celestial powers."† A hundred and fifty years later than the period just mentioned, the number of its professors, and still more the worthlessness of the charlatans who made it their trade, held magic up to the contempt of all enlightened men. So much, indeed, was this the case, that Philostratus, in his biography of Apollonius of Tyana,‡ asserts with eagerness that his hero was no magician.§ In resuming its importance, during the darkness of the Middle Ages, magic became an object of horror and dread; but the progress of knowledge, and the dawn of truth in the last and in the present age, has again reduced it to an object of ridicule.

The Greeks gave the title of magic to the science in which they had been instructed by the Magi;‖ and they thus established to the founder of that religion the claim to its invention. But, according to Ammianus Marcellinus,¶ Zoroaster had

* Phil. Jud., *Lib. De Specialibus Legibus.*

† Idem, *Lib. Quod omnis probus liber.*

‡ This Apollonius, for there were many of the name, was a Pythagorian, and an assumed magician, who gained much reputation by a few remarkable coincidences which seemed to establish his pretended power of looking into futurity, and knowing what events were transacting in distant countries at the time he was relating them. Thus, at the very moment the Emperor Domitian was stabbed, Apollonius stopped short in the middle of a harangue he was delivering at Ephesus, and exclaimed: "Strike the tyrant—strike him!" and when the news of the assassination afterward arrived, he asserted that he had seen the transaction passing in his mind's eye. Although one of the most impudent impostors of his period, yet he was courted by princes, and commanded almost universal homage. The stories told of his supernatural power by Philostratus are utterly unworthy of belief.—Ed.

§ Philostrat., *Vit. Apollon.*, lib. i., cap. 1, 2.

‖ The *Mobeds*, priests of the Guebers, or Parsees, are still named Magoi in the *Pehivi* dialect.—*Zend-Avesta*, vol. ii., p. 506, chap. ix.

¶ Ammian. Marcell., lib. xxvi., cap. 6. An historian of the time of Constantine, who wrote a history of Rome, and who, although a pagan, and consequently favorable to polytheism, yet was moderate in his censure of Christianity.—Ed.

no other merit than that of making considerable additions to the art of magic as it was practiced by the Chaldeans.* In the wars carried on against Ninus by Zoroaster, who was King of Bactria, Arnobeus† affirms that on both sides magical arts were employed in common with more ordinary weapons. The prophet of the Arieni, according to the traditions preserved by his disciples, was subject from the cradle to the persecutions of magicians; and just before his birth the world teemed with these pretenders to supernatural power.‡ Saint Epiphanius§ relates that Nimrod, in founding Bactria, established there the sciences of magic, and of astronomy, the invention of which was subsequently attributed to Zoroaster. Cassien speaks of a treatise on Magic|| which existed in the fifth century, and which is attributed to Ham, the son of Noah! The father of the Church just quoted, places the commencement of magic and of enchantments as far

* The period in which Zoroaster, or Zerduster, lived is uncertain, but his religious system became that of Western Asia from the time of Cyrus to the conquest of Persia by Alexander the Great. The doctrine of a good and an evil principle was the foundation of his religious system. He taught that both were created by the Almighty; but that man and all the materials of happiness were created by the good spirit, who was named Ormuzd; while the latter, Ahriman, introduced all the evils abounding in this world. The magi were the sacerdotal class in ancient Persia: they worshiped fire and the sun as the emblems of Ormuzd.—Ed.

† Arnob., lib. i.

‡ *Life of Zoroaster. Zend-Avesta*, tome i., part ii., p. 10, 18, &c.

§ S. Epiphan., *Advers. Hæres.*, lib. i., tome 1. Saint Epiphanius, although a Christian bishop, yet was born of Jewish parents at Besanduean, near Eleutheropolis, in Palestine. In early life he was a disciple of the Gnostics in Egypt; was made Bishop of Salamis, the metropolis of Cyprus, in the year 368, and died at sea A.D. 403. His writings are valuable as containing many quotations from works no longer extant. Jerome affirms that he was well acquainted with the Latin, Greek, Hebrew, Syriac, and Egyptian languages, and calls him pentaglottos, the five-tongued; but Scaliger doubts his learning, and asserts that he committed the greatest blunders, and told the greatest falsehoods.—Ed.

|| Cassien, *Conferen.*, lib. i., cap. 21.

back as the time of Jared, the fourth from Seth, the son of Adam.

Magic holds a prominent place in the traditions of the Hebrews. The ancient inhabitants of the land of Canaan had incurred the Divine wrath by their use of enchantments.* The Amalekites fighting with the Hebrews,† in their flight from Egypt, and Balaam besieged in his city by the King of the Ethiopians, and subsequently by Moses,‡ alike recurred to magic as a mode of defense.§ The priests of Egypt were looked upon even in Hindostan as the most subtle of all magicians. Not less versed than themselves in the secrets of their science,|| the wife of Pharoah was able to communicate its mysteries to the remarkable child saved from the waters of the Nile by her daughter; and who, "learned in all the wisdom of the Egyptians, was mighty in words and in deeds."¶ Justin, agreeing with Trogilius Pompeius, relates that Joseph, having been carried into Egypt as a slave, acquired there the arts of magic, which enabled him to foresee and to avert the horrors of famine, which, without this interposition, must have depopulated that beautiful kingdom.**

From the earliest ages magic has obtained the

* *Wisdom of Solomon.* "Whom thou hatest for doing most odious works of witchcraft, and wicked sacrifices; and also those merciless murderers of children, and devourers of man's flesh, and the feasts of blood, with their priests out of the midst of their idolatrous crew, and the parents that killed with their own hands souls destitute of help.—Chap. xii., ver. 4–6.

† *De Vita et Morte Mosis, &c.*, p. 35. ‡ *Ibid.*, p. 18-21.

§ *Les Mille et une Nuits*, 507e Nuit (traduction d'Edouard Gauthier), tome vii., p. 38.

|| *De Vita et Morte Mosis, &c.*, note, p. 199.

¶ *Acts of the Apostles*, cap. vii., vers. 22.

** *Justin*, lib. xxxvi., cap. 2.*

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* That Joseph might have acquired some of the learning of the Egyptians, and even a knowledge of magic, is not improbable; but Justin has no authority for referring his foresight of the famine, which he predicted and provided for, to that art.—Ed.

highest consideration in Hindostan. M. Horst* establishes the truth that the collection of the *Vedas* contains many magical writings. He remarks, that the laws of Menou, in the code published by Sir William Jones, mention various magical ceremonies which are permitted to be employed by the Brahmins (chap. ix., p. 11). There exists also in Hindostan a belief not less ancient, and which likewise prevails in China, that, by the practice of certain austerities, the penitent acquires an invincible and truly magical power over the elements, over men, and even over the powers of heaven. The Hindoo mythology, in many places, represents penitents dictating laws, and inflicting punishments on the Supreme Divinity.

If from the East we carry our inquiries Westward, and toward the North, we find magic bearing equal marks of ascendency, and of high antiquity. Under its name, "*Occult Science*," it was known to the Druids of Great Britain† and those of Gaul.‡ Odin, so soon as he had founded his religion in Scandinavia, was regarded there as the inventor of magic.§ Yet how many had preceded him! Voëlours, or Volveurs,|| priestesses well versed in magic,

* M. Greg. Conrad Horst published, in 1820 and 1821, *The Library of Magic*, 2 vols. I have not been able to consult the German original; what I quote from it here, and in the 4th chapter, is obtained from a notice which the erudite M. P. A. Stapfer has had the kindness to communicate to me.

† Plin., *Hist. Nat.*, lib. xxx., cap. 1.

‡ *Ibid.*, lib. xvi., cap. 14; lib. xxiv., cap. 11; lib. xxv., cap. 9; lib. xxix., cap. 3.

§ Odin flourished about 70 years B.C., as a conqueror, a priest, and a monarch. He took advantage of the ignorance and credulity of his countrymen, the Scandinavians, to impose upon them the most absurd ideas of his supernatural power. He fell by his own hands; and, in dying, promised eternal felicity to such of his followers as should lead a virtuous life, fight with intrepidity, and die in the field of battle.—Ed.

|| The Gothic women were supposed to possess, in a peculiar degree, the faculty of looking into futurity; on which account,

were associated with the ancient religion, which Odin attempted either to destroy or to remodel.* The first tales of Saxo Grammaticus are connected with times greatly anterior to the age of Odin: there are few of them which do not contain a display of magical power.

Erudition and physiological criticisms have arrived at a point of perfection which renders it superfluous to discuss the question, whether a knowledge of the occult sciences was obtained by the Northern tribes from the Greeks and Romans. There is sufficient reason for saying that they were not;† and there can be but little doubt that the Greeks and Romans were but the imperfect scholars of the sages of Egypt, of Asia, and of Hindostan. At what period the communications of the priests of the Ganges with the Druids of Gaul, or the Scalds of Scandinavia, took place, it is difficult to determine. He who can develop the origin of superstition, and of the human sciences, may be

those among them who made profession of magic and divination were every where received with respect and honor. On this fact the *Vegtams Kivitha*, or Descent of Odin, so admirably translated by Grey the poet, is founded. Odin wends his way to Niflheliar, the hell of the Goths, to consult Hela, the Goddess of Death, who, in life, had been one of these prophetesses.

> "Right against the eastern gate,
> By the moss-grown pile he sate;
> Where long of yore to sleep was laid
> The dust of the prophetic maid."

His object was to know the fate of his son Balder, who was sick, and for whose life he was alarmed.—Ed.

* Munter, *On the most Ancient Religion of the North, before the Time of Odin. Dissertation extraite par* M. Depping, *Mémoires de la Société des Antiquaires de France*, tome ii., p. 230, 231.

† M. Tiedmann has put this truth beyond a doubt. See his Prize Dissertation in 1787, crowned by the Academy of Göttingen. *De Quæstione quæ fuerit artium magicarum artium origo; quomodo illæ, ab Asiæ populis ad Græcos atque Romanos, atque ab his ab cæteras gentes sint propagatæ quibusque rationibus adducti fuerint ii qui, ad nostra usque tempora, easdem vel defenderent, vel oppugnarent?* Marpurg, 4to, p. 94, 95. I have taken advantage more than once of this excellent Dissertation by Tiedmann.

supposed also capable of informing us of the source of magic. But, in reference to the period in which magic was assiduously studied, we are taught to believe that the sages attempted to govern nature by means of science, in the name of the principle of all good; and at another, by the art of working miracles through invocations of the evil powers. This distinction of equal and unequal powers operating against one another, being sometimes productive of similar results, may be traced in the history of Zoroaster, and in that of the Hindoo mythology; and such must always be the case where men of opposing interests are endowed with the same resources. Who were the evil genii? The gods and the priests of rival religions. This omen, or that miracle, still in fact the same, was attributed by one set to the intervention of Heaven; by another, to the interposition of the infernal demon; according as particular opinions prevailed, or according to the locality where they occurred.

To this direct opposition respecting the origin of miracles, alternately the objects of adoration and of abhorrence to the superstitious, was allied the unanimous concurrence as to their reality. The general assent of mankind is said to be an irrefragable proof of truth;* and we may ask, when was this assent ever given with greater decision than in favor of the existence of magic, or the science of working miracles, by whatever name it is designated, by whatever title we adorn it? For thousands of years civilized nations, as well as the most barbarous tribes, if we except a few savage hordes, cherished, denounced, and endeavored to protect themselves against the power which they believed was granted to some men to change the common course of nature, through the medium of

* *Consensus omnium populorum, &c.*

certain mysterious operations. We say the common course of nature, because it is important to remark that the doctrines of the ancients regarding apparent miracles, and their generally admitted opinions, differ materially from those which the moderns of the West appear to have formed for themselves; and according to which, the attempt to explain a miracle is, in effect, to deny it. The theory that a miracle bespeaks a subversion, or a suspension of the laws of nature, may have been first admitted by fear or astonishment, and afterward continued by ignorance and want of reflection; but against this admission both reason and skepticism are speedily armed. In this sense there exists no miracle. Under our very eyes a conjurer has apparently revived a man who has been beheaded; and Ælian relates that Esculapius reunited the heart of a woman to her corpse, and restored to her both life and health.*

The Kurdes, or *Ali-Oulahies*, who worship Ali, the son-in-law of Mohammed, as an incarnation of the Deity, ascribe a similar miracle to him; and it has been still more recently asserted that a noble magician possessed the secret of performing it.† Admitted among the spectators, a philosopher would at first be suspicious of imposture. He would recollect how much the address of the mere juggler may effect. A juggler very recently, indeed, exhibited to the public the spectacle of apparently beheading a man, as he lay upon the stage, in such a manner as to produce very painful feelings in the

* Ælian, *De Nat. Animal.*, lib. ix., cap. 33.

† Fromann, *Tract. de Fascin.*, &c., p. 635, 636. Rabelais, a philosopher, who, under the mask of folly, has so many times exalted reason, seems to have had in his view this imposture. He displays to us Panurge completely curing one of his companions in arms, who had had his head cut off in battle.—*Pantagruel*, liv. ii., chap. 30.

spectators.* He displayed the severed head to convince the skeptical, and even invited them to touch it, to open the mouth, which shut again of its own accord, and to examine the bleeding section of the neck at the extremity of the trunk ; he afterward withdrew a curtain, and almost immediately the living man reappeared. Now let us suppose the juggler to be above the suspicion of chicanery, the skeptic might say : "I presumed the thing to be impossible, but it appears that I was wrong, if my senses are not spell-bound by some insurmountable illusion. I admit that the fact, if once established, becomes a valuable acquisition to science ; but before I can recognize a miracle in it, I must have the demonstration that the thing could not occur except God himself should reverse the order of his own fixed laws. At present your proof reaches no further than what is afforded by my probably deceived sight, and your skillfulness."

By presuming the existence of a thing on the ground of its possibility, the ancients, inspired with religious gratitude, did not require that the apparent miracle which astonished them should be of a description to subvert the order of nature ; every unexpected succor in urgent necessity was received by them as a direct benefit from the gods ; all that implied worth, prudence, or learning superior to that of ordinary men, was ascribed by them to an intimate participation in the divine essence, or, at least, to a superhuman inspiration, of which the superior being who displayed these gifts was the first to boast. In ancient Greece the wonderful exploits of great men were rewarded by gaining for them the title of heroes, a term synonymous with that of *demi gods ;* and also by conferring upon the hero of divine honors.

* At Nancy, in 1829.

If the remembrance of this ancient and universal belief were preserved among us, we should censure less severely Homer, and other poets of antiquity, for the repeated intervention of the gods; the narrative of the poet expresses, in the clearest manner, the sentiment of the hero who, having been saved from imminent peril, or crowned by a signal victory, imputes these advantages to the god who deigns to act as his guardian and to be his guide. Actuated by such a belief, which assimilates perfectly with our hypothesis regarding the origin of civilization,* the religious man does not perceive any necessity for ascribing imposture to the miracles cited in favor of the revelations of other sects; he neither exposes himself to dangerous recriminations, nor does he listen to any retaliation with regard to his own creed, or to arguments tending to weaken that human testimony on which is founded our faith in all these extraordinary events which we have not personally witnessed. The priests and the magi of religions the most widely different, unhesitatingly acknowledged the assumed miracles performed by their adversaries. On several occasions, Zoroaster entered the lists with necromancers inimical to his new doctrines: he did not deny their power, but he surpassed them in performing wonders; and he asserted that while they were executed by the power of the *dews*, emanations of the principle of evil, he established the truth of his assertions by maintaining that he surpassed them only through the aid of the principle of good.†

* *De la Civilization*, liv. i., chap. 7.

† Anquetil, *Vie de Zoroaster, Zend-Avesta,* tome i., partie 2, passim.

CHAPTER VI.

Trial of Skill between the Thaumaturgists.—It was admitted that the Victor derived his Science from the Deity; but it was founded on Natural Philosophy, the Proofs of which are derived: 1st. From the Conduct of the Thaumaturgists.—2d. From their own Assertions regarding Magic, that the Genii invoked by the Magicians sometimes signified the physical or chemical Agents accessory to the Occult Science; sometimes the Men who cultivated that Science.—3d. The Magic of the Chaldeans embraced all the Occult Sciences.

Wherever divisions arose in the sacerdotal colleges, on account of interests involving power or glory, then combats of skill, analogous to those that constituted the triumphs of Zoroaster, were exhibited; the attendant consequences were the infusion of greater energy and the addition of increased lustre to the Occult Sciences. The multitude, at once the dupes of credulity and the slaves of fear, willingly revered as prodigies, mysterious omens, and miracles, the unusual phenomena of nature; but the thaumaturgist had a more difficult task, when enlightened men were to be at the same time his rivals and his judges. The marvelous was then investigated with critical severity. The fleeting apparition was not admitted as sufficient proof of the miracle, but a permanent effect was required. The miracle was to be displayed, not by such dexterity as the ordinary necromancer could boast,* but by the most consummate skill. The prodigy was required to stand out in bold relief, and to display unusual characters; and, above all, it was requisite that the omen should have been predicted by the

* In the present day, the *Dalai-Lama* punishes the priests of his religion who deceive the people by swallowing knives or vomiting flames.—Timkowski, *Voyage à Pékin*, tome i., p. 460.

thaumaturgist, and that it should happen at tne precise moment indicated by his prophecy.*

Victorious in the trial of skill, conducted in accordance with these laws, the thaumaturgist had no difficulty in establishing his claim to be considered as the disciple and interpreter of the Divinity. In short, that piety which referred to divine inspiration every token of virtue in the mind, or in the deeds of man, naturally led to the particular study, acquirement, and practice of the occult sciences. The fruits of virtue, such as prudence, temperance, and courage, assimilate in degree, and, even between their most distinct extremes, admit of a parallel sufficiently palpable to exclude in general the necessity of imputing to them an extraneous origin; it was not so with the results of science; always surrounded by the marvelous, its connection or reference to arts purely human was studiously concealed.

These considerations, if we regard them without prejudice, would, I believe, absolve the Greek and Roman authors from the censure of having too readily admitted into their narrations pretended miracles only worthy of contempt. They not only believed, but they felt an obligation imposed on them to transmit to posterity those which their own religion required them to hold in reverence, as well as those consecrated by the worship of other nations. In performing this duty, and knowing, or at least suspecting, the connection of miracles with a mysterious knowledge emanating, as they believed, from the gods, they, by their fidelity in detailing such miracles, preserved the history of their faith from oblivion.

Charlatanism, or jugglery, certainly intermingled

* Rabbi Meiraldabic, *Semit. Fedei.*, lib. i. *Gaulm.*, ii. *De Vita et Morte Mosis*, nota, p. 208, 209.

with the operations of the thaumaturgists, as we shall have occasion to prove. But the tricks of legerdemain, sometimes truly astounding, that are exhibited by modern impostors in our theaters and public places, are not unfrequently founded on chemical and physical facts connected with magnetism, galvanism, electricity, and chemistry, although the vulgar charlatan depends for the secret of these deceptions merely on the possession of recipes, which only teach him how to practice; but this does not entitle us to deny that the principles, when such recipes are derived, should be ranked among the sciences.

And this is what we discover in the temples as soon as the first glimmerings of historical light enable us to penetrate their obscurity. It is impossible to devote one's self to researches connected with the origin of the sciences without perceiving that in the depth of these sanctuaries alone one vast branch of ancient lore flourished, and that this one constituted an all-important part of the mysteries of religion. All miracles which can not be referred to adroitness or imposture were the fruits of this secret science; they were, in short, real experiments in physics. The processes by which their success was to be secured formed an essential part of sacerdotal education. Who, it may be asked, originally conceived and arranged these scientific formularies? Was it not the philosophical guardians of a code of doctrines recognized by their disciples under the name of Magic, Theurgic Philosophy,* and the Transcendental Science?

Why did Mohammed refuse to work miracles, declaring that the Almighty had denied to him the power? We may reply, because the occult sci-

* Theurgy is defined "the power of performing supernatural acts by lawful means, as by prayer to the Deity."—Ed.

ence of the thaumaturgists was unknown to him.* Why, in our own times, did Swedenborg, surrounded by truly enlightened spectators, have recourse to a similar subterfuge, and affirm that his revelations being a sufficient miracle, those who refused to credit them would not yield to the prodigies which they demanded as proofs of their truth?† We may also reply, because he was aware that the time for miracles was over. It is said mankind are too enlightened to believe in them. Is not this, in other terms, to say, that that which constitutes a secret science, reserved exclusively for some privileged beings, has now stepped into the vast domain of general science, accessible to all inquiring minds? Let us examine this opinion in its consequences. There can be no hesitation in admitting that four descriptions of prodigies narrated by the ancients can not be rejected, and therefore that they ought at once to be acknowledged as facts.

1st. Arts which come into common use may pass for divination, or magic, as long as the secret of displaying them is confined to a few individuals.

On Mount Larysium, in Laconia, the feast of Bacchus was celebrated in the commencement of spring, and ripe grapes were produced at this season to bear testimony to the power and beneficence of the god.‡ The priests of Bacchus were probably acquainted with the use of hot-houses and stoves.

Industrious men had carried the arts of working in iron into the islands of Cyprus and of Rhodes;

* This is too severe a censure on Mohammed, who, if we fully concur in his condemnation as an impostor, can not be charged with making his ignorance the reason for not extending his impostures. It is a charge for which the author has no authority. —Ed.

† Swedenborg, *Vera Christ. Relat.*, p. 846, 850. *De Cœlo et Inferno Præfatio. Abrégé des Ouvrages de Swedenborg*, par Daillant Latouche, 8vo, 1788, p. 37, 38, 293, 294.

‡ Pausanias, *Laconia*, cap. xxii.

an ingenious allegory personified them under the name of *Telchines*, Children of the Sun, the Father of Fire, and of Minerva, the Goddess of the Arts.* Ignorance and fear added to the terror with which those who first appeared in arms were regarded, and they were looked upon as magicians, whose very glance was to be guarded against.

Acquainted with the treatment of metals, the Fins also figure, in the early poetry of Scandinavia, as sorcerer dwarfs, dwelling in the depths of the mountains. Two dwarfs, inhabiting the mountains of Kallova, and skillful in forging and fabricating arms, consented, on hard conditions, to initiate the blacksmith Wailand into the secrets of their art, on which account he acquired much fame in the legends of the North for the excellence of the arms which he furnished to the warrior.†

In the esteem of men who knew only how to combat, the perfection of defensive armor and offensive weapons was so important as to lead them to refer the art which produced them to supernatural agency. Enchanted arms, bucklers, cuirasses, helmets, on which every dart was blunted, every lance broken; swords which pierced and could dissever any suit of armor, do not only belong to the romances of Europe and of Asia, but they originated under the hammer of Vulcan, and their value was recited in the songs of Virgil, in the immortal verses of Homer, and also in the Sagas. Such arms

* The name Telchines was in reality derived from Telchinia, the ancient name of the Island of Crete, whence the Telchines originally emigrated to Rhodes. They were skillful workmen, and the inventors of many useful arts, and were also the first who raised statues to the gods. Ovid (*Metam.*, vii., 365) bestows upon them the power of assuming various shapes, of fascinating all animals with their eyes, and of causing hail and rain to fall when they pleased. Jupiter, envious of their power, destroyed them by a deluge.—Ed.

† Depping, *Mémoires de la Société des Antiquaires de France.* tome v., p. 223.

were said to be fabricated by necromancers, or men who succeeded in obtaining the secrets of those wonder-workers.

2d. The works of magic were circumscribed within the limits of science; and beyond these ignorance was forced to supplicate its aid. Indeed, the biographer of Apollonius of Tyana ridicules the senselessness of those who expected, through magic, to gain the crown in the combats of the circus, or to insure success in their love, or in their commercial speculations.*

3d. In the trials of strength, when opposing interests were to be settled between those who were the guardians and depositaries of the occult science, as it was feared that the limits of magical resource might be accidentally exposed to the profane and uninitiated, a tacit, formal compact existed among the thaumaturgists themselves, in the observance of which the interests of all, even the most exasperated rivals, were involved.

The Greek mythology did not admit one deity to interfere with, or subvert the schemes or operations of another; and the same reciprocal safeguard may be traced through most of the fairy tales which have been borrowed from early tradition and handed down to us by our ancestors. At an epoch greatly antecedent to the first Odin, the heroic history of the North speaks of the cruel fate of a female magician,† sentenced to a barbarous death by her whole tribe, for having instructed a prince, whom she loved, in the means of controverting the schemes of a magician who was bent on his destruction. In a collection of wonderful tales of undoubted Hindoo origin,‡ we find a female magician and one of

* Philostrat., *Vit. Apollon.*, lib. vii., cap. 16.
† Saxo Grammaticus, *Hist. Dan.*, lib. i.
‡ The Hindoo origin of the *Thousand and One Nights*, main-

the genii, strongly opposed to each other in their inclinations, yet bound by a solemn treaty, restraining each from any contravention of their schemes, or from injuring the person of the other party; but, notwithstanding this agreement, they attempted to conquer each other by other means; but, neither consenting to yield, they ended by fighting outright, throwing about jets of burning matter, which killed and wounded several spectators, and finally put an end to both combatants.*

If, instead of beings endowed with pretended supernatural powers, we substitute men like our-

tained by Hammer and Langlès, is denied by M. Silvestre de Sacy, who ascribes the composition of this collection to a Syrian Mussulman of no earlier era than four centuries ago (*Memoir read at the Académie des Inscriptions et des Belles-Lettres, 31st July*, 1829). That four hundred years ago, a compiler may have disseminated a collection of such of these tales as are known in Arabia and in Syria, is possible: that he was a Mussulman, is evident from the pains he has taken to introduce Mussulmans throughout the whole, with a total disregard of time or of country; but it may still be asked, Is this writer the original author? I reply in the negative, because, 1st. Several of the narratives here brought together may be found in the collections of the Hindoos and of the Persians, which are of an earlier period than the supposed date of this writer. 2d. Judaism and Christianity were well known in Syria and in Arabia, and the disciples of both, but especially those of Christianity, must have played some part in tales invented within four hundred years, that is to say, nearly two centuries after the last of those famous Holy Wars, in which the standard of the Cross had more than once driven back the ensigns of Islamism, and yet we find no notice of other adversaries to the disciples of Mohammed than magicians and evil genii. 3d. We retrace here the traditional existence in Asia of pigmies; men who have their heads beneath their shoulders, and others having the head of a dog; traditions which some very ancient Greek authors had gathered from the East, but which had been subsequently voted to oblivion as absurd fables. 4th. Their Hindoo origin is evident from the history of the Brahman Pad-Manaba, a favorite of the god Vishnou (fourteenth Night). A Mussulman could never have invented a fable so contrary to his own creed. If the Syrian compiler introduced it without mutilation, it undoubtedly was admitted because the grounds of it were too familiar and too popular to risk any alteration.

* *Mille et Une Nuits*, 4e *Nuit*, tome i., p. 318; 5e *Nuit*, p. 320–322.

selves, the process and the result would have proved nearly the same. They only differed in one respect, namely, in the blindness of their fury, at the risk of betraying a secret which it was their interest to preserve, they employed weapons prohibited among magicians, and exhibited themselves to the vulgar, mortally wounded by the same magical implement which their prudence should have reserved to terrify or to punish the uninitiated.

4th. In such struggles the triumph of a thaumaturgist might possibly appear to his adversary less decisive than it would to his partisans, particularly when the pretended miracle had been one of his own choosing, and one which he defied his rival to imitate; his antagonist might, indeed, recover his superiority by displaying, in his turn, a proof of his power which should secure to him the victory.

Nothing is better adapted to confirm these ideas than a glance at the manner in which the ancient magicians worked. Their art does not appear to have been the result of natural genius, nor assuredly of supernatural power, but of the knowledge of secrets painfully acquired and with difficulty preserved. To work magically, therefore, to conjure genii, or so to invoke the gods as to constrain them to apparent obedience, required very extensive preparations; but over the nature and operation of these the veil of mystery was thrown. Plants and animals, collected in secret, were in various ways combined and subjected to the action of fire, and scarcely one step was taken without the assistance of some formulary, or the consultation of books, the loss of which was almost equivalent to the loss of all magic power. Such were the sources of the power of the greater number of the thaumaturgists, who were truly scholars of natural philosophy, and who were forced continually to

seek in their sacred volumes the prescriptions, without which they could neither properly work out their charms nor display their delusions.

Traces of the existence of these books are found among a people fallen, in the present age, into the most lamentablo barbarism, but whose traditions are connected with a very ancient, and probably an advanced state of civilization.* The Baschkirs believe that the *black books*, the text of which, they allege, originated in hell, give to their possessor, provided he is capable of interpreting them, an absolute empire over nature and demons. These books, together with the power which they conferred, generally descended by inheritance to the individual among the pupils of their possessor whom he judged most worthy to succeed him.† Sound works on physics and on chemistry, as applied to the arts, might replace, with advantage, the magic books of the Baschkirs; but we are still not much in the advance of the time, in which certain persons, indifferent as to either the enlightenment or the ignorance of mankind, would have assumed that such works could only emanate from the principle of evil. Let us now, however, consult the thaumaturgists themselves on the nature of their art.

Apollonius‡ denied that he was of the number of the magicians; they are, says he, only the artisans of miracles. They are often stranded in their attempts; but when they fail, they acknowledge that they have neglected to employ such a substance, or to burn such another. Inexpert charlatans, who permit the mechanism of their miracles to be seen!

* The Baschkirs, like the Laplanders, the Bouraetes, the Ostiaks, and the Samoièdes, have, from time immemorial, made use of hereditary family names. (E. Salverte, *Essai sur les Noms d'Hommes, de Peuples, et de Lieux*, tome i., p. 143.)

† *Annalen der Erd-, Volker-, und Staaten-Kunde.*

‡ Philostrat., *Vit. Apollon.*, lib. i., cap. 2.

Apollonius himself boasted that his science was the gift of God, the reward of his piety, his self-denial, and his austerity; and in order to produce miraculous effects, he needed neither preparations nor sacrifice. His presumption, which equalled that of the Hindoo penitents, merely proves that he was a more accomplished thaumaturgist, and one who could boast of a higher knowledge of his art than those whom he depreciated. What he says of the ordinary thaumaturgist confirms our former assumption, that the sect were mere laborers in natural philosophy.

Chærémon, a priest and sacred writer (*scriba sacer*), taught the art of invoking the gods, so as to force them to perform the miracles demanded of them. Porphyry,* in refuting Chærémon, affirms that the gods themselves taught men the ceremonies and the spells by which they might be conjured.† But this is merely the attack of one school upon another—a strife of words. The beings who obeyed the invocation were not those who dictated the rites by which the invocation was to be expressed. Iamblichus enables us to recognize a distinction between them.

In the attempt to explain the manner by which a man may acquire an influence over the genii, Iamblichus arranges these deities in two divisions: the one higher divinities, from whom nothing could be obtained but through prayer and the practice of virtue; these were the gods of Porphyry. The other subordinate, corresponding to the obedient

* Porphyry was born at Tyre, in the year 233. He became a pupil of Origen, and afterward of Longinus, who named him Porphyrius, implying "man in purple," or adorned with a kingly robe. His original name was *Melech*, which is the Syriac for king. He died at Rome, A.D 304, toward the conclusion of the reign of Dioclesian. He is chiefly celebrated for his writings against Christianity.—Ed.

† Euseb., *Præp. Evang.*, lib. v., cap. 8–11.

deities of Chærémon, and they are thus described by the theurgist, "spirits devoid of reason or discernment, and of intelligence, and only brought forward for particular purposes, although gifted with power in some measure greater than that which man possesses; yet they are forced to exercise their peculiar functions at his command, because he is endowed with reason and discernment, of which they are devoid, and which enable him to ascertain, and to amalgamate the properties of various existences."* Let us suppose that we are attending a lecture on chemistry and natural philosophy. "There exist," the professor may say, "substances capable of producing extraordinary results, incapable of being effected by man, when assisted only by his natural faculties, such as eliciting sparks from ice, or the production of ice in a heated atmosphere, effects which have been produced, although the substances displaying them operate without design and without discernment. Blind agents in themselves, they become miraculous instruments of power in the hands of the man who, by the deductions of science, possesses the secret of skillfully applying their properties, and making them subservient to his purposes."† The professor may thus

* Iamblichus, *De Mysteriis*, cap. xxxi., *Invocationes et Opera Hominum adversus Spiritus.* "Est etiam aliud genus spirituum . . . *indiscretum et inconsideratum*, quod *unam* numero *potentiam* est sortitum . . . unde *unum uni* tantum operi addictum est. . . . Jussa et imperia violenta diriguntur ad spiritus *nec utentes propriâ ratione, nec judicii* discretionisque principium *possidentes.* Cum enim cogitatio nostra habeat ratiocinandi, naturam atque discernendi quâ res ratione se habet . . . spiritibus imperare solet, *non utentibus ratione* et ad *unam tantum actionem* determinatis . . . imperat, quia natura nostra intellectualis præstantior est quam *intellectu carens*, et si illud in mundo latiorem habeat actionem."

† At the meeting of the British Association at Cambridge, in June, 1845, Professor Butigny amused the ladies by producing ice in a vessel at a glowing red heat. This was performed by making a deep platina capsule red hot, and at the same moment

display with precision latent influences rendered active in the service of chemistry and of philosophy; and all that he can say of them has been said by Iamblichus touching the genii of the second order.

The professor may then continue: "When an ignorant person tries an experiment, without closely following processes which are put down for him, he will assuredly fail, if the employment of one only of the substances prescribed by science is neglected." If, for the words ignorant persons, experiments, process, and substances, we substitute profane, religious observances, rites, divinities, or genii, the professor will have spoken as if he had translated two passages from Iamblichus on the course to be followed in working miracles.*

Among the genii obedient to magical power, we are informed that some were to be conjured in the Egyptian, some in the Persian language.† Is not this a demonstration that the ceremonies were preserved in the formulary of the philosophers, which each temple preserved in their sacred language, so as to make them practical. The Egyptian priests worked a miracle by a process of which the Persian priests were ignorant, while the latter either worked the same miracle by a different process, or set up another miracle equally brilliant in opposition to it.

liquid sulphurous acid, which had been preserved in that state by a freezing mixture, and some water, were poured into the vessel. The rapid evaporation of the sulphurous acid during its volatilization when it entered into ebullition, a state which takes place at the freezing point, produced such an intense degree of cold, that a large lump of ice was immediately formed; and, being thrown out of the red-hot vessel, was handed round to the company in the section. How powerful would have been the influence of such an experiment, if asserted to be a miracle, in a pagan sanctuary.—Ed.

* "*Quando* profani *tractant sacra contra* ritus, *frustratur eventus.*"—Iamblich., *De Mysteriis*, cap. xxx. "*Uno prætermisso* numine sine ritu *communis ipsa* religio *finem non habet.*"—Ibid., cap. xxxiii.

† Origen. *Contr. Cels.*, lib. i.

To the mind that revolts at the idea of exalting physical agents into supernatural powers, let us exhibit the divination based on the most simple operations of industry. What among the Romans, the disciples of those Etruscans who derived their original civilization from religion, and ascribed it to their entire existence, were the gods to whom the Flamen appealed, at the feast celebrated in honor of Terra, the Earth, and the Goddess of Agriculture? We recognize them by their names: the first was *Vervator*, implying the plowing of the fallow land; the second, *Reparator*, labor; the third, *Imporcitor*, the sowing of the seed; the fourth, *Insitor*, the operation which covers the seed; the fifth, *Obarator*, harmony; the sixth, *Occator*, the weeding with the hoe; and the seventh, *Sarritor*, the second weeding, and so on.* The priest only enumerated the operations of agriculture, and superstition converted them into divinities. The same superstition regarded as a supernatural being the man whose talents produced works above the ordinary capacity of his fellow mortals.

The art of treating metals was deified under the name of *Vulcan*. The Telchines, the earliest artificers in iron known among the Greeks, were at first regarded as magicians, but subsequently looked upon as demigods, genii, and malevolent demons.† The Fifes (fairies, fays, or genii) were

* Servius in Virgil, *Georgic.*, lib. i., vers. 21. et seq.; et Varro, *De Re Rust.*, lib. i., cap. 1. The names of the other divinities were *Subruncinator, Messor, Convector, Conditor, Promitor.* The improvement of the soil was also under a divinity named *Sterquilinius* or *Stercilinius.*

† Suidas, verbo *Telchines.* See the article on Telchines in the *Dictionnaires de la Fable de Noël et de Chompré et Millin.* Men who, attached to the worship of nature, or the Goddess of the Earth (Cybele, Magna Mater, &c.), introduced into many places the art of working in metals, and were known in different countries under different names—Telchines, Curates, Idæan Dactyles, Corybantes, &c.; but all pertained to the same priesthood, and

famed in Scotland as excelling in art;* and to a similar belief we probably owe the proverbial ex-

transmitted their knowledge from generation to generation. It is on this account that ancient writers sometimes confound them, and at other times assert that some were the ancestors of others. —Diod. Sic. Strabo. Pausanias.

* There is no part of the world, and no portion of the history of the human race, that is devoid of superstitious observances; and the predilection for the wild, the wonderful, and the terrible may be regarded as universal. Even in the present day, when science and a rational theology have dissipated, in a great degree, these illusions, the vestiges of them still remain, and impress sentiments which, although they are endeavored to be concealed, yet are strongly felt.

No subject would be more interesting than an inquiry into the origin of the superstitions of uncivilized tribes, but it is of too comprehensive a character to be entered upon in this place; we shall, therefore, content ourselves with tracing to their birth-place a few of the most popular delusions in the olden times of our own country. The Fayes and Fairies are evidently of Scandinavian origin, although the name of Fairy is supposed to be derived from, or rather a modification of, the Persian *Peri*, an imaginary benevolent being, whose province it was to guard men from the maledictions of evil spirits; but with more probability it may be referred to the Gothic *Fagur*, as the term Elves is from *Alfa*, the general appellation for the whole tribe. If this derivation of the name of Fairy be admitted, we may date the commencement of the popular belief in British Fairies to the period of the Danish conquest. They were supposed to be diminutive, aerial beings, beautiful, lively, and beneficent in their intercourse with mortals,* inhabiting a region called Fairy Land, *Alf-heinner;* commonly appearing on earth at intervals, when they left traces of their visits, in beautiful green rings, where the dewy sward had been trodden in their moonlight dances. The investigations of science have traced these rings to a species of fungus, Agaricus *oreades;* but imagination still leads us, willingly, back to the traditional appearances of these diminutive beings in the train of their queen, and while, in the mind's eye, we see her asleep, cradled on a bed of violets, ever canopied

"With sweet musk roses and with eglantine,"

we also behold her tiny followers dancing away the midnight hours to the sound of the most enchanting music. In Scotland the existence of Fairies was believed in the seventeenth century; and in some places in the Highlands the belief is not yet extinct.† No idea is attempted to be given of the situation of the "countree of Fairie;" but the favorite haunts of its people on earth are green hills, romantic glens, and inaccessible waterfalls.

* *Remains of Kirk White*, vol. i., p. 34.
† Sinclair's *Statistical Account of Scotland*, vol. xiii., p 243

pression "to work like fayes." "The gnomes," say the Cabalists, "are people of small stature,

At a linn, or waterfall, on the River Crichup, in Dumfriesshire, is a cell or cave, called the Elf's Kirk, where the Fairy people, "the imaginary inhabitants of the linn, were supposed to hold their meetings."* So late as 1586, a woman named Alison Pearson was tried, convicted, and burned for holding intercourse with and visiting her majesty of Fairy Land. The indictment runs thus: For hanting and repairing with the gude neighbors, and Queene of Elfland, thir divers years by-past, as she had confest; and that she had friends in that court which were of her own blude, who had gude acquaintance of the Queene of Elfland; and that she was seven years ill-handled in the court of Elfland." Can a stronger proof be adduced of the awful abuse of power into which mortals may be betrayed when the mind is enfeebled by credulity and superstition?

"One of the tricks of the Scottish Elves, for they were not always beneficent, was stealing new-born infants, and replacing them with monsters. These thefts were committed in order to enable them to pay tithe to the devil with the stolen child instead of one of their own brood, a tribute which they were obliged to pay every seventh year. A beautiful child, of Caerlaveroc, in Nithsdale, was thus changed on the second day of its birth, and its place supplied by a hideous Elf. The servant to whom the changeling was intrusted in the absence of her mistress, however, discovered the trick. She could not perform her other work, owing to the fretfulness of the changeling; but the Elf, hearing her complain, started up and performed all her work, and, on her mistress's approach, returned to the cradle. She told her mistress her discovery, and at the same time said, 'I'll wirk a pirn for the weo deil.' With this intention she barred every outlet in the room, and, when the embers were glowing, undressed the Elf, and threw it upon the fire. It uttered the wildest and most piercing yells, and in a moment the Fairies were heard moaning, and rattling at the window-boards and the door. 'In the name o' God bring back the bairn!' cried the servant: the window flew up; the earthly child was laid unharmed on the mother's lap, while its grisly substitute flew up the chimney with a loud laugh."†

Another description of Scottish Elves was the *Brownies;* a race of beings both diminutive and gigantic, benevolent and knavish. The former was the most common, and are described by Mr. Cromek‡ as "small of stature, with short, curly hair, with brown, matted locks, and clad in a brown mantle which reached to the knee, with a hood of the same color." They were fond of sweet cream, honey, and other dainties, portions of all of which were generally left for them, as if by accident, in some part of

* Scott's *Minstrelsy of the Scottish Border*, vol. ii., p. 206.

† Cromek's *Remains of Nithsdale and Galloway Song*, p. 308.

‡ Idem, p. 230, *et seq.*

guardians of hidden treasures, of mines, and of precious stones; they are an ingenious race, friend-

the dwelling; the Brownies being forbidden by the higher powers to accept of wages or bribes. They, nevertheless, revenged themselves when intentionally neglected, and they could

"Bootless make the breathless housewife churn,
And sometimes make the drink to bear no barm."

This Brownie was the same kind of sprite as the goblin-groom of the English, "who," says Dr. Hibbert, "was an inmate of many houses so late as the seventeenth century;"* and also the same as a sprite named *Putscet*, whom the Samogitæ, a people on the shores of the Baltic, who remained idolaters in the fifteenth century, invoked to live with them, and for whom, according to Mr. Douce,† a table, covered with bread, butter, cheese, and ale, was placed every night in the barn, and which, we may venture to add, was regularly cleared before morning. The Northern nations regarded these sprites as the souls of men of libertine habits, doomed to wander on the earth, and to labor for mankind for a certain time, as a punishment of their crimes.‡ In Orkney and Shetland the belief in such sprites continued even in the eighteenth century. "A domestic spirit of this kind," says Dr. Hibbert, "was the inmate of the house of Ollaberry about a century ago."

In Shetland we find numerous traditions of the *Duergar*, or Scandinavian dwarfs, under the name of Trows. They are stated to be malevolent beings, partaking of the nature of men in having material bodies, and of the nature of spirits in the power of making themselves invisible. Besides the name *Trows*, they are also called, familiarly, *gude folk*, and are still believed to exist. They live on beef and mutton, and drink milk like mortals; are much addicted to music and dancing; and are great quacks, compounding many salves, and performing many special miraculous cures. Like the English Fairies, they are also addicted to the stealing of children, and leaving their own unholy progeny in their places.

"While around the thoughtless matrons sleep,
Soft o'er the floor the treacherous fairies creep,
And far away the smiling infant bear:
How starts the nurse when, for the lovely child,
She sees at dawn a gaping idiot stare."§

It is melancholy to reflect that these superstitions still exist in any portion of the British Empire. That they were not expelled when Christianity was introduced into Shetland, is attributed by Dr. Hibbert to their being "conveniently subservient to the office of exorcism, which constituted a lucrative part of the emoluments of the inferior Catholic clergy with which Orkney and Shetland

* Hibbert's *Description of the Shetland Islands*, p. 467.
† *Illustrations of Shakspeare.* ‡ Olaus Magnus.
§ Erskine's additions to Collins's *Ode on the Superstitions of the Highlands.*

ly to mankind, and providing the children of the wise with all the money they require."* Credulity peopled the mines in several countries of Europe with genii; they were known under the appearance of small, but robust, brown men, always prepared to punish the indiscretion of the profane person that intruded on their labors. All that has been said of these genii, or gnomes, might hold good of the miners themselves, at a time when their art, pursued in obscurity, was exclusively destined to increase the riches and maintain the power of the enlightened classes. But the veil of allegory, which graced the tales† of the East, is now rent, and the laborers in the iron mines are no longer the genii of these subterranean workshops. Sensitive as they are described to have been to the kindness of princes, who instituted festivals in their honor, they no longer hasten to their aid when their necessities are great, nor can they now be saved by their grateful intervention.

We may sometimes trace the means by which such metamorphoses were accomplished.‡ Agamede, in Homer, implies a woman devoted to the good of others, and intimately acquainted with the properties of all medicinal herbs. Orpheus, a wise emissary of the gods,§ who, by the charms of metrical verse, and the harmony of language, drew around him the rude people whom he came to civilize, as well as the wild beasts of the forest.|| The

were at one time overrun."* The whole history of these imaginary beings is, indeed, a melancholy picture of human reason degraded to a state of the most abject slavery beneath the tyranny of credulity and superstition.—Ed.

* *Revue Encyclopédique*, tome xxxi., p. 714. Le Comte de Cabalis, *ou Entretiens sur les Sciences Secrètes*, second entretien, p. 48, 49.

† *Thousand and One Nights.*

‡ Homer, *Odyss.*, lib. iv., v. 226. *Iliad*, lib. xi., v. 737–839.

§ Horat., *De Art. Poet.*, v. 390–393.

|| Pausanias asserts that he was deeply versed in magic. Many,

* Hibbert's *Scotland*, p. 451.

historians quoted by Diodorus represent the mysterious arts of Circe and Medea as purely natural,* especially where their knowledge rested on the efficacy of poisons and their antidotes; but mythology has, nevertheless, preserved the reputation of Ætes's daughter as an invincible magician. The poets who succeeded Homer represent Orpheus as being versed in magic;† and Theocritus describes Agamede as the rival of Circe and Medea‡ in the magical arts.

The Egyptian priests, who ranked next in order to the sovereign pontiff, are called magicians in the ordinary translations of Exodus, while their arts are styled enchantments. Mr. Drummond,§ an archæologist, who has made deep researches into the language and history of the Hebrews, considers these interpretations as incorrect: according to him, the text implies secret, not magical working, and the title of the priests, *chartomi*, derived from a word which signifies to engrave hieroglyphics, expresses nothing further than the knowledge they possessed of hieroglyphics in general.

Who, we may inquire, were the prophets consulted by Pythagoras at Sidon, and from whom he received sacred instructions? They were the descendants of Mochus,|| the physiologist, a sage deeply versed in the phenomena of nature, and the inheritors of the knowledge of his science. If Justin does not scruple to admit the reality of the greater

among whom Aristotle is placed by Cicero, doubted altogether the existence of Orpheus; but there are many reasons for believing that such a person existed, without crediting the absurd legends interwoven with the traditions concerning him.—Ed.

* Diod. Sic., lib. ii., cap. 1, 6.

† Euripid., *Iphigen. in Aulid.*, v. 11, 12. *Cyclop.*, v. 642.

‡ Theocrit., *Idyll.*, ii., v. 15, 16.

§ Mr. Drummond, *Memoir on the Antiquity of the Zodiacs of Esneh and Dendera.* 8vo, London, 1823, p. 19, 21.

|| He was a native of Sidon, and is regarded as the founder of the philosophy of anatomy.—Ed.

proportion of the miracles ascribed to Apollonius of Tyana, he could have observed in them only dazzling proofs of the noble science of the thaumaturgists.*

In conclusion, the learned Moses Maimonides† has demonstrated that the ground-work of Chaldean magic lay substantially in an extensive acquaintance with the resources of the animal, vegetable, and mineral kingdoms. One object of such knowledge was to acquire the power of indicating the propitious time when the magical results might be expected, that is to say, the moment in which the season, the temperature, and the state of the atmosphere gave a reasonable hope of success in working by means of physical and chemical agents, or which aided the learned observer in predicting natural phenomena that could not be foreseen by the multitude. Introduced into the sanctuary of the occult science, the mystery of magic vanishes; we see in it only the school where the various branches of natural science were taught, and we admit in their literal sense all the assertions of mythology and of history regarding men and women invested by the talented founders with the possession of their secret, and who not unfrequently became superior to their masters. To this end it was sufficient, after having submitted to trials imposed with a view of insuring discretion, that the pupil should give himself up to the zealous study of the secret science, and his perseverance and capacity only could enable him to extend its limits, the advantages of which he afterward reserved to himself, or partially communicated to the objects of his particular regard.

* S. Justin, *Quest. et Repond. ad Orthodox.*, quest. 24.
† Moses Maimonides, *More Nevochim.*, lib. iii., cap. 37.

CHAPTER VII.

Errors mingled with the positive Truths of Science.—These have their Origin sometimes in deliberate Imposture, sometimes in the Mystery in which the Occult Science is involved.—Impostures exaggerated.—Pretension of the Thaumaturgists.—Charlatanism; Jugglery; Tricks of Legerdemain more or less palpable; Chance, and the Facility with which its Results may be controlled.—Oracles conjoined with Equivocation and Imposture, to insure their Fulfillment by natural Means, such as Ventriloquism, &c.; and by, finally, exact, but very simple Observations.

HAD the thaumaturgists cultivated science with the noble ambition of becoming themselves enlightened, and of enlightening their fellow-creatures, we should have only to look into their works for the vestiges of doctrines, no doubt incomplete, but pure and free from any base alloy. It is not so. Their whole aim was to gain power, veneration, and an obedience that knew no bounds; hence, every thing that favored this end was deemed legitimate; mere sleight of hand, fraud, and imposture were resorted to, as well as the practice of the most elevated science.

After having conquered, it was necessary to insure the possession of the scepter, and it was deemed essential, for this purpose, to exhibit every where the semblance of supernatural power, and to conceal the instrumentality of man, even when the display of this empire of genius over nature would have redounded to his glory. An inviolable secrecy enveloped the principles of the science; a particular language, figurative expressions, emblems, and allegories, threw a veil over even its minor details. The desire to solve these sacred enigmas gave rise, among the profane, to a thousand extravagant conjectures, the dissemination of which, in-

stead of being checked, was favored by the thaumaturgists. They regarded them as so many guarantees of the impenetrability of their secrets, and we shall convince our readers that the absurd opinions originating from this source were not the only evils which this conduct entailed upon the human mind.

We shall consider in succession these two sources of error, and demonstrate that their consequences form a part of the history of civilization as well as that of magic.

The present operates less forcibly on the human mind than the future. The former, positive and limited in its nature, confines our belief to that which is real; the latter, vague and uncertain, leaves it open to the unrestrained dreams of fear, of hope, and of imagination. The thaumaturgist, therefore, could easily promise, and inspire a belief of the fulfillment of wonders, which he had no hope of realizing.

Nothing can be more absurd than the details connected with the renewal of the youth of Æson,* by the enchantments of Medea; yet, at an early period, the Greeks, the Arabs, and even the Hebrews, believed in the possibility of this phenomenon.

Credulity, in assigning no limits to the power of the thaumaturgists, forced them occasionally to refuse, without compromising themselves, to perform impossible miracles. A Cicilian invoked Æsculapius in his temple in the expectation that by rich presents, pompous sacrifices, and magnificent promises, he might move the god to restore an eye which

* Æson was the father of Jason, the husband of Medea. Owing to his age and infirmities, he was unable to assist at the rejoicing for the victory of the Argonauts; but Medea, says the tradition, at the request of his son, restored him to the vigor and sprightliness of youth, by drawing all the blood from his veins, and filling them again with the juices of certain herbs.—Ed.

he had lost. He was unsuccessful, because, says Apollonius of Tyana, who was well acquainted with the subterfuges which were commonly resorted to in the temples, he was unworthy of the favor he besought, and the loss of his eye was the just punishment of an incestuous adulterer.*

Even when the required miracle did not surpass the boundaries of science, it was still necessary, in performing it, so to occupy the attention of the spectator, that his observation might be withdrawn from the mechanism of the operation, or from the embarrassment which the thaumaturgist experienced when the result was retarded. This species of artifice, so familiar to modern jugglers, was no less so to the magicians of old. What the former obtains by address, or ingenious raillery, the latter insured by the aid of cabalistic rites, well adapted to inspire reverence and awe. The third part of the magic of the Chaldeans belonged entirely to that description of charlatanism which consists in the use of gestures, postures, and mysterious speeches as by-play, and which formed an accompaniment to the proceedings of the thaumaturgist well calculated to mislead.† The priests of Baal, in their unequal emulation with the prophet Elijah, made incisions in their bodies, which were, perhaps, more visible than deep.‡ The theurgists of Greece and of Italy threatened those genii who were to slow in obeying them, that they would invoke them by a name which they dreaded.§ Whatever were the means, the aim was to gain time, and to distract

* Philostrat., *Vit. Apollon.*, lib. i., cap. 7.

† Moses Maimonides, *More Nevochim.*, lib. iii., cap. 37.

‡ 1 *Kings*, chap. xviii., vers. 28. "And they cried aloud, and cut themselves after their manner with knives and lances, till the blood gushed out upon them."

§ Lucan, *Pharsal.*, lib. vi., vers. 745. Stat., *Thebaid*, lib. iv., vers. 156.

attention; for, either penetrated with compassion or filled with awe, the spectators were thus induced to regard with less distrust the practices necessary for the consummation of the pretended miracle.

But we have already observed that similar difficulties were confined to the public trials of skill among the Thaumaturgists: on every other occasion the credulity was in advance of the miracle. How many tales have we, for example, of the marks of blood, preserved for centuries, to bear testimony to a crime, or a remarkable judgment? It is related, by some travelers, who, in 1815, visited the room in which David Rizzio was stabbed, that the guide, in pointing to the stains of his blood, took particular care to inform them the boards were stained anew every year.* At Blois, likewise, during the annual fair, the warder of the castle causes blood to be sprinkled on the floor of the room where the Duke of Guise was murdered; and this is exhibited to the curious as the blood of this martyr of the League. It is scarcely necessary to say that the histories of all such relics are alike.

The head of a statue, struck by lightning, fell into the bed of the Tiber; the augurs indicated the spot where it might be found, and the event confirmed their predictions.† Without doubt, they had previously taken infallible measures to ascertain the fact; and had pursued the same measures, which, at various periods, in other countries, have

* *Voyage inédit en Angleterre en* 1815 *et* 1816. *Bibliothèque Universelle, Littérature*, tome vii., p. 363. The murder of Rizzio, who was secretary to Mary, Queen of Scots, was committed by Lord Ruthven and his accomplices, at the door of the private apartment or cabinet of the queen, in Holyrood House, on the 9th of March, 1566. The blood stains, renewed as described in the text, are displayed to every visitor of that palace.—Ed.

† Cicer. *De Divinat.* lib. i., § 10.

discovered to us so many holy and curious images, in grottoes, in forests, and in the channels of rivers.* In short, we might refer to what happened a very short time since, when a rabbit, a dog, and two oxen revealed to the adoration of the Portuguese a Madonna, to whom soon afterward solemn thanks were offered up for the destruction of men, who would have rescued the people from the bondage of ignorance and of fanaticism. In 1822, an attempt to unveil imposture could not be made but at the risk of life.†

At Temersa, a virgin was annually sacrificed to the manes of Lybas. Euthymus, the wrestler, desirous of putting an end to this barbarity, had the courage to challenge the spectral Lybas; who presented himself, black, horrible, and clothed with the skin of a wolf. The intrepid wrestler, however, overcame the specter, who in his rage at being defeated threw himself into the sea.‡ There is little doubt, that a priest, disguised as a satyr,

* Swinburn (*Travels in the Two Sicilies*, vol. i., p. 199) supposes, that during the invasions of the Saracens into Italy, the Christian fugitives frequently concealed the objects of their devotion in almost inaccessible places, where, after a certain lapse of time, they were accidentally discovered. But in every part of Christian Europe, in countries never subject to the invasions of the Mussulman, in dark ages, crucifixes, statues, and images have been found which have never failed, subsequently, to work miracles. Let us not impute to chance, too often repeated, that which results from the machinations of a subtile and persevering policy; and let us remember that other religions have enjoined on their disciples the worship of newly discovered relics. Thus we are told, that at Patras, adoration was offered to a statue of Venus, which had been recovered from the sea by some fishermen in the act of dragging their nets. (Pausanias, *Achaic.* c. 21.) The fishermen of Methymna also drew to land a head sculptured from the wood of the olive-tree; the oracle commanded the Methymneans to worship this head under the name of Bacchus Cephallenianus (Pausanias, *Phocic.* cap. 19).

† Mrs. Marianna Baillie, *A Sketch of the Manners and Customs of Portugal, &c.*, London, 1824.—*Nouvelles Annales des Voyages*, tome xxx., p. 405.

‡ Pausanias, *Eliac.* lib. ii., cap. vi.

was the actor in this scene, and that he was unable to survive his defeat. We are told that the conqueror also soon afterward disappeared, and the manner of his death remained a profound secret. The colleagues of the specter were probably better informed on this point than the public.

Sinan Raschid-Eddin,* chief of the Bathenians or Ishmaelites of Syria, concealed one of his pupils in a cavity, permitting the head only to appear, which, being surrounded by a disk of bronze, having the appearance of a basin filled with blood, seemed to be the head of a man recently decapitated.

Uncovering it before his disciples, he commanded the deceased to relate what he had experienced since he ceased to live. The well trained interlocutor delivered, according to previous instruction, a brilliant account of the joys of heaven, declaring, at the same time, that he would rather continue to experience them, than be again recalled to life ; and dictated, as the only security for their future enjoyment, an implicit obedience to the will and decrees of Sinan Raschid-Eddin. This scene redoubled the enthusiasm, the devotion, and the fanaticism of the audience. After their departure, Sinan put his accomplice to death, in order to secure the secret of his miracle.

But for what purpose, it may be asked, do we thus multiply instances of fraud, so palpable, that the most adroit or subtile scarcely deserves the name of jugglery ? I reply, that if the art of imposing on the senses, in spite of incredulity and a scrutinizing observation, has been made subservient to the interest, the cupidity, or the policy of men who trade in the credulity of their fellow-creatures,

* *Mines de l'Orient*, tome iv., p. 377. A fragment translated from original authors, by M. Hammer, who died in 1192.

the art of the juggler is not alien to our subject. That it has been thus instrumental, is proved by its existence in all ages, with every refinement that could possibly aid or second it, by inspiring awe, or commanding astonishment. Thus, it has always flourished in Hindostan; and to all the other characteristics which attest the Hindoo origin of the Bohemian Gipsys (Zingari), may be added their perfection in tricks of every kind.*

That it has been so subservient in all countries, we may infer from the fact, that the apparent miracles with which it astounds the unenlightened, have held, universally, a prominent place in the works of pretenders to supernatural influence. The examples which we shall hereafter bring under consideration will afford sufficient proof of this being the case among civilized people; but at present we shall confine our attention to those magicians, who, in the center of a half-savage horde, united the functions of priests, magistrates, and physicians. These magicians among the Osages owed their influence principally to the extraordinary nature of their deceptions. Some of them plunged large knives into their throats, and the blood flowing profusely left no doubt of the apparent reality of the wounds.† Can we, therefore, wonder that

* The term Zingari was one of the many appellations by which these extraordinary wanderers are known. In Holland, they were called *Heydens*; in Hungary, *Pharachites*; in Spain and Portugal, *Gitanos*; in Germany, *Tzianys*; and in Turkey, *Tschingenes*. The original country of these wanderers is still undetermined, although the similarity of their language with Sanscrit gives a coloring of probability to the opinion that they came originally from Hindostan. My friend, Major Moor, says that he showed two Gipsy women, at different times, a knife, and asked what they called it. The reply was, "*Chury*;" exactly as half the inhabitants of the great Indian range would have answered—from *Indus* to the *Brahmaputra*.—*Oriental Fragments*, p. 351.—Ed.

† *Nouvelles Annales des Voyages*, tome xxxv., p. 263.

among the aborigines of America, the utmost respect is inspired for the man whose power can prevent the smallest trace of so frightful a wound. European conjurers will go through the same process for our amusement; and persons who do not desire to pass for jugglers have carried on similar deceptions, though with a different intention. It is attested by a priest, who witnessed the fact, that in Italy penitents have appeared to inflict upon themselves, with scourges of iron, the most cruel flagellations, without in reality suffering any injury.*

In the fifteenth century, at the solemnization of the excommunication of the Hussites, in the churches of Bohemia, the lighted tapers were spontaneously extinguished at the precise moment in which the priest concluded the ceremony of excommunication; and this deception was regarded by the awe-struck congregation, as a clear manifestation of divine power.†

To expose the manner in which sacerdotal policy can render an art, in appearance futile, serviceable

* Le P. Labat, *Voyages d'Espagne et d'Italie*, tome vii., pp. 31, 32.

† Joachimi Camerarii, *De Ecclesiis fratrum in Bohemia et Moravia*, p. 71.—To the above instance of credulity we may add the following:—"On the summit of the Ochsenkopf, in the Fichtel Gebirge, immediately opposite to the church-tower of Bischofsgrun, is supposed to be seated a Geister-Kirche (a church for supernatural beings), adorned with incalculable wealth. The entrance to it is through the fissure of a rock, which, it is said, begins to open when the church-bell at Bischofsgrun rings; it is wide open when the priest begins to read the Gospel of the day, and it closes with a crash as soon as he has finished. Although this statement might be easily refuted, yet, none dare attempt the refutation; and the report is current that several persons now living at Bischofsgrun have entered the temple, and have taken away some of the treasures; but they would scarcely be safe if they were to talk of it."* Such is the ignorance, superstition, and credulity of the population of Fichtel Gebirge.—Ed.

* *Edinburgh Review*, vol. lxxxii., p. 351.

to its own purpose, we have only to select a few examples. In the judicial trial by cold water, every thing depended on the manner of binding the accused: the ligatures might be arranged, so as to cause him either to sink or to swim, according to their specific gravity, in comparison with that of the water. The iron collar of Saint Sané, in Bretagne, was used as an ordeal: in cases of supposed perjury it infallibly strangled the guilty.* The priest who applied the collar was master of the secret, and consequently the result lay in his hands. The Iodhan-Moran, a collar, worn at the commencement of our era, by the Governor of Iceland, was, if we may believe the traditions of the island, no less formidable. Placed on the neck of a deceitful or refractory person, it was drawn so close, that the power of respiration was almost extinct, and any attempt to reopen it, before a true confession was obtained, invariably failed.† In public market-places, it is not uncommon to see the scales of a balance, at the command of a juggler, alternately ascending and descending. This trick may be sport in Europe, but in Hindostan, it places the life of an accused person in the power of the priests, who employ it as an ordeal. They declare, that if guilty, the crime will manifest itself, by adding perceptibly to the previously ascertained weight of his body. After some ceremonies, he is weighed with care; the act of accusation being then attached to his head, he is weighed again. If he be lighter than at first, his innocence is admitted; if heavier, or if the balance breaks, the

* Cambry, *Voyage dans le département du Finistère*, tome i., p. 173.

† G. Higgins, *Celtic Druids*, *Introduction*, p. lxix. The *Iodhan-Moran* was also intended to strangle the judge who gave an unjust judgment, but it is doubtful whether this miracle was ever displayed.

crime is proved. Should the equilibrium remain, the trial must recommence, and then, the sacred books declare, there will certainly be a difference in weight.* When the result of an apparent miracle is thus confidently predicted, one may easily conjecture the method by which it has been worked.

An example of another description may be taken from a people, we should scarcely suspect of such refinement of subtilty. An English traveler, the first white man who visited the tribe of the Soulimas, near the sources of the Dialliba, describes the following curious scene: A body of picked soldiers fired upon their chief, who defended himself with nothing but his talismans; and although their muskets were charged, yet they all missed fire; immediately afterward, without any particular preparations, the soldiers veered round, and pointing their muskets in another direction, they all went off. These men must, therefore, have had the address to open and cover at will the priming of the muskets,† but in some manner which is carefully concealed; and the design was evidently to persuade the people, that they have nothing to fear from the arms of the enemy, so long as they are furnished with amulets consecrated by the priesthood.

From an earlier time than might at first be believed, men have existed in Europe who required only audacity or a dominant interest, to induce them to set up their claims to supernatural power.‡

* *Recherches Asiatiques*, tome i., p. 472.

† Laing's *Travels among Timanni, the Kourankos, the Soulimas, &c.*

‡ Fromann acknowledges that many jugglers (*cauculatores aut saccularii*) have been taken for magicians. (*Tract. de Fascin.*, p. 771 et seq.) He notices also, as partaking of the nature of sorcery, the well known tricks, of breaking a glass, cutting a gold chain or a plate into many pieces, and afterward exhibiting them as perfect and entire as they were before.—*Ibid*, p. 583.

Now, if we suppose this desideratum supplied, and instead of this being employed for the amusement of a few idle spectators, it is directed to ends less futile, it would command at once the veneration of those whose ridicule alone it now excites.

This deduction is not forced. In our own days a juggler called Comus (and the secret was solely his) could announce privately to any one, the card of which another was thinking; and this when there was no possibility of connivance. Witnesses of this fact are still in existence. In England, also, he repeatedly performed the same trick, before numerous spectators, who, having large bets depending on the result, could not be suspected of collusion. The clear-sighted Bacon bears witness to the performance of the same trick, at a period when the performer, by giving such a proof of his skill, incurred the risk of being led to the stake, prepared for wizards and the punishment of witchcraft. The juggler, said he, "whispered in the ear of one of the spectators, that such a person will think of such a card."* The philosopher adds that the trick might be ascribed to connivance, which, however, from his own observation, he had no reason for suspecting.

If men so talented were anxious to signalize themselves by working apparent miracles, in the midst of an ill informed population, would they find their object impossible? If they are asked, for example, to tell a fortune, Fate will undoubtedly become the interpreter of the inquirer's wishes; and by this rule may be measured the extent of their power. Time out of mind, an important part has been played by Fate, in the greatest as well as

* "He did first whisper the man in the eare, that such a man should think of such a card."—Bacon, *Sylva Sylvarum*, Century x., 946.

in the most trivial events of life, even where fraud was not suspected. How often, distrustful of their own prudence, or unable to reduce different opinions to harmony, have men referred to the arbitration of Fate! The early Christian church had recourse to this appeal, in order to decide whether Joseph or Matthias should succeed the traitor Judas Iscariot in the apostleship; and Origen* commends the apostles for this act of humility, by which they submitted their own judgment to the decision of Heaven, in a choice which they might have made for themselves.†

This idea has appeared sufficiently plausible, to induce men otherwise enlightened to push it to an extravagant length. Origen did not scruple to advance the opinion that the angels in heaven‡ decide by lot, regarding the particular nation or province over which each shall watch; or to what individuals they shall act as guardians. A Protes-

* This remarkable man was born in Egypt, A.D. 184; and, when he was seventeen years of age, his father Leonidas having suffered martyrdom, he was with difficulty prevented from offering himself as a martyr. At forty years of age, he had acquired so much celebrity by his eloquence and preaching that it excited the jealousy of his cotemporaries, who persecuted him and obtained his expulsion from the office of a presbyter; but his opinion and advice were, nevertheless, eagerly sought after. He successfully answered the objections urged against Christianity by Celsus, a philosopher who lived in the reigns of Hadrian and the Antonines; but some years afterward, during the Dorian persecution, he was imprisoned; and suffered so severely from the torture, that soon after his release from confinement, he died A.D. 253, in his seventieth year. The talents, learning, and eloquence of Origen were admitted both by Christians and pagans; and his piety was equal to his learning. The writings of Origen, however, led to violent controversies in the Church, during the fourth century; and although he settled many disputed points in Scripture, yet he also introduced some dangerous interpretations of them.—ED.

† *Act Apost.* chap. i., v. 24 et seq. "And they gave forth their lots, and the lot fell upon Matthias, and he was numbered with the eleven apostles."—Origen, *Homil.* xxiii. *in libr. Jes. Nave.*

‡ Origen, *Homil.* xxiii. *in lib. Jes. Nave.*

tant minister, nearly a century ago, maintained, that an appeal to Fate was of a sacred nature; and consequently that the smallest games, those in which there is but little to be won or lost, are on that account most profane.* The question has been viewed in a different light, by a writer who employed his brilliant eloquence to introduce the spirit and doctrines of the temples into philosophy and politics. Plato,† in his "Republic," suggests that the marriages of citizens should be contracted by lot; but, at the same time, that some secret artifice, known only to the rulers of the state, should enable them to overrule the decision and to render it conformable to their views; and that the artifice should be so well concealed, that such as considered themselves ill assorted would impute it solely to chance or Fate.

To one or the other opinion, we may refer those events, by which Fate has been forced to represent the will of the Deity, and to be the instrument of the revelation of His decrees—the same means of decision having been employed by policy, and adopted by credulity as true. Nebuchadnezzar mingled his arrows, to decide whether he should go against Ammon or against Jerusalem: the arrow went out against Jerusalem, and the dreaded conqueror did not long delay the accomplishment of the decree of Fate.‡ This species of divination was in use among the Arabs, in the time of Mohammed: but that prophet proscribed it as a hateful sin.§ The Tartar hordes, led on by Gengis Khan to the conquest of Asia, endeavored by this means also to ascertain the issue of a battle. A trick

* Dejoncourt, *Lettres (quatre) sur les Jeux du Hasard*, La Haye, 1713, p. 19.

† Plato in *Timæo . . . et Republic*, lib. v.

‡ *Ezekiel*, chap. xxi. 19–22.

§ *Le Coran*, Sourate v., verset 99.

rendered the effect more striking. The magicians wrote the respective names of the rival armies on two arrows, which, without any apparent cause, became agitated, approached each other, and fought; lastly, one placed itself upon the other, which was supposed to indicate the army destined to succumb.* Jugglers, who know the use of a hair, or an almost imperceptible thread of silk, in moving cards from a distance, would find no difficulty in working this miracle of the Tartars.

The Christians themselves have not abstained from this superstitious practice. Alexis Comnenus, in order to ascertain whether he should attack the Comanes, and whether he should offer battle, or march to the assistance of a besieged city, placed two tablets on the altar, in the belief that the one which should first strike his eye, after a night passed in prayer, would convey an expression of the will of Heaven.† The Senators of Venice, under the reign of the Doge Dominique Michieli,‡ not being able to agree respecting the town which they should first attack, referred the decision to the lot, and abode by its result.

Although at Venice, even more than elsewhere, Fate had been frequently consulted in this manner, with a view to modify the elections and divide the suffrages; yet it may be doubted, whether it was seriously allowed to exercise the same influence over the schemes for a campaign, particularly in a senate renowned for its policy, and at that time composed of accomplished warriors. It was more likely to have been a studied stratagem, intended to engage a brave but undisciplined and insubordinate people, in an expedition, the dangers and

* Petis de la Croix, *Histoire de Gengis Khan*, pp. 65–67.
† Anna Comnène, *Histoire d'Alexis Comnène*, lib. x. chap. v.
‡ D. Michieli, 35e Doge. . . Hadrian, Barland, *De ducib. venet.*

fatigues of which robbed it of its glory, and made its necessity less apparent?

In the decline and miserably weak condition of the Greek Empire, neither honor, national interest, nor religion, nothing in fact but superstition, was capable of inspiring a degraded population with energy: it was this decision of Fate that roused Alexis, a prince who was in advance both of his age and his nation, to action. And although, in former times, we find the interpretation of Fate proclaimed in a thousand shapes by the oracles, and its decision sought after with avidity, as well as received with blind veneration; yet, we believe at the same time, that the King of Babylon, having previously arranged his plans, resorted to this superstitious ceremony, merely as a means of insuring its success, by demonstrating its infallibility, as guarantied by the gods, to the enthusiasm of his soldiers.

To lead men on by their credulity, in pretending to partake of it, is an artifice of policy, which, in every quarter of the globe, and in all times, has been politically employed, without any other care than varying its form, so as to make it coincide with the habits and the intelligence of the race of men on whom it was destined to act.

The chief of a Brazilian tribe, having taken up arms at the instigation of the Dutch, who had promised him efficient assistance, had some reason to suspect, that his allies intended to leave him to give battle unsupported, and afterward to reap the fruits of his exertions against their common enemy. On several occasions, therefore, he consulted his gods in presence of the Dutch ambassadors. From the sacrificial hut, voices seemed to issue predicting defeat and flight, should the combat commence before the arrival of the promised succor; they

also announced, that the time was not yet arrived for receiving their aid; and commanded the chief, meanwhile, to retire before the enemy. With the assent of his soldiers, he protested that he should obey, and retire even into the territories of the Dutch: this was a sure mode of putting an end to the delay. The Dutch envoy, Baro, firmly believed the oracle to proceed from the devil.* We may ascribe it with greater probability to priests concealed in the sacrificial hut. The artifice was rude, but the policy was complete.

The augur Naevius, after having in the name of religion boldly opposed the alterations which the elder Tarquin was desirous of effecting in the Roman Constitution, was summoned to give a proof of his science, by demonstrating the possibility of a design secretly thought of by that monarch. He replied that he would give a proof. The design was to cut through a flint with a razor; and we are told that the miracle was performed in the sight of all the people.† The oracle of Delphi indicated with precision the occupation of Crœsus in the interior of his palace at Sardis, at the very moment of the inquiry.

We are inclined to suspect that Tarquin, unable honorably to withdraw from a project, the danger of which he perceived too late, connived at the opposition of the augur, and with him, preconcerted the miracle best adapted to give him an apparent triumph; thus preserving his honor by seeming to yield to the gods alone. We know that the ostensible pretext, for the religious embassies of the

* *Voyage de Roulox Baro au Pays des Tapayes en* 1647.

† Dionys., *Halic.*, lib. iii., cap. xxiv. Tarquin, as a reward of the skill of Naevius, erected him a statue in the *Canitium*, a large, open place of assembly in Rome, and buried the razor and flint near it. Cicero, who had himself been an augur, treats this absurd story as it deserves.—Ed.

King of Lydia, was to consult the Fates on his projects, while their real end was to gain the coöperation of his people, and to encourage them by the brilliant promises made to him by the most celebrated of oracles.*

These promises proved deceitful; and the equivocation by which the Delphic god maintained the reputation of his infallibility, recurs so naturally to our memory, and awakens the recollection of so many similar events, that we might give a sufficient explanation of almost all these oracles, by recalling the ambiguity of terms; the connivance that favored them; the mechanical inventions that suggested the omens;† and the accidental advantages offered by the simplicity of those who came to consult them. We may, indeed, remark that many of these oracles do not seem so much to have been verified, as credulity desired and believed them to be.

Every one who has read the excellent History of Oracles, by Fontenelle, chiefly‡ taken from the work of Vandale,§ must be aware that it leaves us

* The same power of stating what is passing in places at a great distance from that in which the person is at the moment he is making the statement, has been assumed by the mesmerists of the present day; and such is the influence of credulity over even educated persons, that many have believed it to be possible.—Ed.

† Lavater had made a promise to the metaphysician Bonnet, that a sorceress, residing at Morat, should, four times in a day, declare what Bonnet himself was doing at Geneva. At first, two predictions exactly corresponded; but the succeeding ones were all absurd. (Dumont, *Traité des Preuves Judiciaires de J. Bentham*, tome ii., pp. 233, 234.) In an earlier age, credit would have been given to the two first trials, and their fortuitous success would have been deemed confirmatory of a supernatural power.

‡ See Clavier's *Mémoire sur les Oracles Anciens*, 8vo., 1818. Lucien (*Alexandre ou le Faux Prophète, Œuvres de Lucien*, tome iii., pp. 18–23, and 42–46) gives an idea of the artifices employed by the priests of the oracles in his time; among others was the secret of unsealing letters, so familiar to modern governments.

§ Anthony Vandale, a learned Dutchman, who practiced both physic and theology. He wrote two dissertations *De Oraculis*,

but little to add respecting a widely spread error of a belief in oracles, which was so universal, indeed, that it appears scarcely to have ceased under one form before it was reproduced under another; so unable are reason and experience to combat with the passionate desire to penetrate into futurity.

I may now merely remind my readers that Apollo bestowed on his favorites the gift of divination, on the condition that they should not inquire of him concerning that which was not permitted to be revealed,* a wise precaution to avoid perplexing queries. The sibyl wrote her oracles on leaves,† which, dispersed on the winds, were by this artifice rendered obscure and incomplete, and opened a door for equivocation until time brought about the event. I need likewise merely recall to recollection the colossal statue of Siva,‡ in the rear of which are paths leading to a commodious seat, just under the head-gear of the god; a place meant undoubtedly for the priest, whose office it was to utter the oracles in the name of the god.

Weak, impassioned men, the slaves of interest and ambition, of pride and of policy, were those who pronounced these oracles. It is known, and a thousand instances demonstrate the fact that they

which were published in 1700. The *Histoire des Oracles* of Fontenelle is taken entirely from Vandale's work. Its object is to prove that the oracles were not the responses of supernatural agents or demons; and that they did not cease after the appearance of our Savior, or the commencement of the Christian era.—Ed.

* Servius in *Virgil*, *Eclog.* viii., v. 30.

† Virgil, *Æneid*, lib. vi., v. 442–450.

‡ Maria Graham, *Séjour aux Indes*, p. 96. Siva Kala is one of the Hindoo triad, the Indian God of Fire, and is called the Destroyer. His ministers are evil spirits, *Saktis*, who are supposed to live in the stars, clouds, and lower part of the heavens; and bloody sacrifices are offered up both to the principal god and to his satellites.—Ed.

even appeared respectable in the eyes of those who profited by their deluding intervention. This consideration gives the character of history to many mythological tales. A chief or a king is led to believe that intimation had been received from Heaven, that his life and his throne are in jeopardy; and the murderer whom he has to fear, it is said, is his son, or his son-in-law, or the son of his only daughter. By an inconsistency so frequently repeated that it passes unnoticed, the alarmed prince, acting on an implicit credence in the prediction and its infallibility, nevertheless adopts such measures as show that he believes it possible to avert his destiny. Condemning himself or his daughter to celibacy, he may die without posterity; or, jealously combating an imaginary danger, he may become an unjust aggressor, or a suspicious father, and expose himself to assassination, from one whose days he had himself proscribed. His riches and his power thus pass into the hands of the men who dictated the prediction, and who had long been prepared to reap its fruits. In this story there is nothing marvelous, nothing difficult for human credulity to believe; an apparent miracle confined to no age, and to no particular locality.

Only such of the Greeks as were bound by a solemn oath to follow Menelaus, were led by him to the walls of Troy; and among these might have been found many who went with reluctance, and many more who were desirous to abandon a cruel enterprise, the issue of which seemed every day more doubtful and more distant. Of this number Calchas appears to have been a prophet on whom the confidence of the whole army depended.*

* Calchas had received the powers of divination from Apollo; and, at the same time, he was informed that, should he find one more skilled in the art than himself, he must perish. This pre-

Sure of his ascendency, he multiplied discouraging predictions. From the opening of the war he declared that a ten years' siege would be necessary to capture Troy. He reduced the commander-in-chief to the alternative of sacrificing his only daughter, Iphigenia, to Diana, or renouncing the expedition. At a later period, he required him to part with a favorite slave. The omens which protected the city of Priam were multiplied by him at will. It was not enough to have dragged Achilles to certain death; the son of that hero should also come there after the death of the father. It was necessary that Philoctetes, removed by an offense which was unpardonable, and only aggravated by time, should be brought there: lastly, it was necessary to penetrate into the heart of the besieged city, and to abduct the mysterious image of its protecting deity. Considered in this light, do not oracles, apparently fabulous, form an important part of the history of a people, over whom they exercised so irresistible an empire?*

diction was fulfilled at Colophon, after the Trojan war. Mopus, another augur, mentioned the exact number of figs on the branches of a certain fig-tree after Calchas had failed; and the chagrin which this defeat occasioned was the death of the unfortunate soothsayer.—Ed.

* The oracles of antiquity were very numerous, but in all of them the pretended revelations were made through some medium, which was different in the different places where the oracles existed. They were consulted on all important occasions of public and private life; and they were expected to point out both what ought to be done, and what ought not to be done by the inquirer.

The most celebrated of the Greek oracles were those of Apollo, of which there were twenty-two; but the chief was that of *Delphi*, which was more resorted to and consulted than even that of Zeus, or Jupiter, at Olympia. At Delphi, the Pythia, when intoxicated by the vapors which issued from under the tripod on which she sat, uttered unintelligible sounds, which were written down, and explained by the priestess before they were delivered to those who consulted the oracle. The Pythias were, in early times, young girls; but, owing to an indiscretion

If the future may be predicted with certainty, then must it be irrevocably fixed; and thus the prophet resembles the sun-dial, as it passively reveals the sun's diurnal progress. But credulity is

committed by one of them, they were afterward not elected until they had attained the age of fifty years, although, even then, they were attired as young maidens. They were frequently obliged to be changed on account of the deleterious influence of the gas on their constitutions; and sometimes, indeed, they fell victims to its power, although they prepared themselves before ascending the tripod by fasting three days, and bathing in the Castalian fountain. Plutarch informs us (*De Orat. def.* c. 51), that the Pythia, in her delirium, has leaped from the tripod, been thrown into convulsions, and, after a few days, has died. In the zenith of the prosperity of Greece, there were three Pythias, who alternately officiated.

It is curious to find that, amid the superstition which gave to oracles such great authority, responses were refused to any one who came with any evil design, or who had committed a crime, until he had atoned for it; the natural effect of which was to insure a sincere faith in the oracle. The opinions respecting the source of the wisdom displayed in many of the answers have been various: some ascribing them truly to divine influence; others, with more probability, to the priests being of education and elevated sentiments, who, for the sake of power, lent themselves to a sacred imposture.

The next in celebrity of the oracles of Apollo, was that at Didyma, in the territory of Miletus. It was called the Oracle of the *Branchidæ*, from Branchos, a son of Apollo, who came from Delphi, and built the altar at Didyma. The same ceremonies were observed here as at Delphi.

Another oracle of Apollo, much consulted, was situated at *Claros*, in the territory of Colophon. The responses were delivered in verse by a priest, who descended into a cavern, drank of the water from a secret well, and then pronounced the oracle.*

Beside the oracles of Zeus, Apollo, and other gods, there were also oracles of heroes. That of *Amphiares*, near Thebes, was consulted chiefly by invalids, who, after sacrificing a ram, slept a night in the temple, where they expected the means of their recovery to be revealed to them in their dreams; a specimen of credulity only equaled by that displayed in the present time, in the confidence reposed in the healing power of every nostrum which knavery and impudence offers to the public.

The oracle of *Trophonius* shall be noticed in a future note.

The oracles of Æsculapius were numerous, but the most celebrated was that of *Epidaurus*, in which recovery was sought in the same manner as at Amphiarus, by sleeping in the temple.

* Tacitus, *Annal.*, ii., 54.

as unreasoning as it is passionate: and according as the predictions please or afflict, the prophet is exalted as a god, or hated as a malevolent spirit; is adored, or cursed; rewarded, or punished. By fear he is taxed with imposture, with malevolence, or with corruption; he is insulted, menaced, given up to torture; he is supplicated to retract his words, as though the pretended gift of penetrating the future was accompanied by the power of changing its decrees; yet these revelations always obtained credit. If we compare the bearing of these contradictory sentiments with the influence possessed by these oracles, there will be just reason for suspecting that the prophets themselves did not always know the extent of their resources; that they kept within the limits of the power attainable by them: and we may trace the natural progression of the human passions, in what, until the present time, has appeared to be a mere tissue of falsehoods, or the delirium of the imagination.

I have already said, that many things which, in the present day, belong only to the sphere of amusement, were formerly employed to extend the dominion of the Thaumaturgists. The ventriloquist, whose only aim now is to excite our laughter, formerly played a more serious part.*

A German author of the name of Wolf,* has endeavored to show, that what is now termed Mesmerism, was known to the priests of this temple; but the point is not satisfactorily made out.

The most singular of all the oracles were those of the dead, in which sacrifices were offered to the powers of the lower regions, and the spirits of the dead were supposed to be called up. It is probable that the agent in this case was ventriloquism; and the shades made to appear by means similar to those employed in the phantasmagoria, of which an explanation will be found in a subsequent note.—Ed.

* Ventriloquism is the power of imitating voices, sounds, or noises, as if they were perfectly extraneous, and not originating

* *Beitrag zur Gesch. des Somnambulismus, &c.* (*Vermischte Schriften*, p 332.)

This internal voice, which is apparently extraneous to the utterer, whose lips remain motionless, whether it appeared to come from the earth, or from a distant object, was anciently regarded as a supernatural and superhuman sound.* The ex-

in the utterer, but in some other person, and in places at various distances, and even in several directions. A skillful ventriloquist produces these effects without any apparent movement of his jaws, lips, or features. Various opinions have been advanced by physiologists with regard to the manner of producing such an effect. The most commonly received opinion refers it to the power of articulation during inspiration. M. Majendie regards it as a mere modification of the ordinary voice, so as to imitate the sounds which the voice suffers from distance: and latterly Müller contends that, it "consists in inspiring deeply, so as to protrude forward the abdominal viscera by the descent of the diaphragm, and then speaking while the expiration is performed very slowly through a very narrow glottis by means of the sides of the chest alone, the diaphragm maintaining its depressed position. Sounds may be thus uttered which resemble the voice of a person calling from a distance."* This is a very probable explanation, especially as the imagination influences the judgment when we direct the ear to the place whence the ventriloquist pretends that the sounds proceed; a part of the trick which is always taken advantage of by the ventriloquists.—Ed.

* The art of ventriloquism was known at a very early period, and was generally regarded by the ignorant as a supernatural gift, associated with sorcery. It was one of the evidences against a person accused of sorcery, and of course had a share in producing their condemnation. In the seventeenth century a woman named Cecile astonished the inhabitants of Lisbon with her powers as a ventriloquist; she was convicted of being a sorceress, and possessed of a demon; and, although she was not burned, yet, she was transported to the island of St. Thomas, where she died.†

"One of the most successful ventriloquists of modern times was M. St. Gille, a grocer, of St. Germain en Laye. He exhibited his art merely as a matter of amusement, but with a degree of skill which appears almost incredible. He had occasion to take shelter from a storm in a convent, while the monks were lamenting over the tomb of a lately deceased brother, the few honors that had been paid to his memory. A voice was suddenly heard to proceed from the roof of the choir, bewailing the condition of the deceased in purgatory, and reproving the brotherhood for their want of zeal. The tidings of this supernatural event brought the whole brotherhood into the church. The voice again

* Müller's *Elements of Physiology, translated by Baly*, vol. ii., p. 1307.

† *Hist. Curieuse des Sorciers*, &c., par Mathias de Giraldo.

pressions of the historian Josephus,* leave no room to doubt that the witch of Endor was a ventriloquist, and thus had no difficulty in conveying to Saul responses from the assumed shade of Samuel. Other beings similarly endowed with the spirit of a Python, and the power of sorcery, expressed their oracles through the medium of a low, dull voice, apparently issuing from the earth; from which custom a striking comparison is borrowed by the prophet Isaiah.†

The name of Engastrimythes, given by Greeks to the Pythiæ, women practicing the art of divination,‡ indicates that they made use of the same artifice. Pythagoras addresses a speech to the river Nessus, which answered in a distinct voice, *I greet thee, Pythagoras.*§

repeated its lamentations and reproaches, and the whole convent fell upon their faces, and vowed to make a reparation of their error. They accordingly chanted in full choir a *De Profundis*, during the intervals of which the spirit of the departed monk expressed his satisfaction at their pious exercises. The prior afterward expressed himself strongly against modern skepticism on the subject of apparitions; and M. St. Gille had great difficulty in convincing the fraternity that the whole was a deception.*

The influence of ventriloquism over the human race is not, therefore, wonderful, when we perceive that it is not merely confined to the imitation of sounds and voices on earth, but that he has, in a certain degree, the supernatural at his command. The power which it must have given to the pagan priesthood, in addition to their other deceptions, may be easily imagined.—Ed.

* Flav. Joseph., *Ant. Jud.*, lib. iv., cap. xv.

† "And thy voice shall die as one that hath a familiar spirit, out of the ground, and thy speech shall whisper out of the dust." *Isaiah*, cap. xxix., v. 4.

‡ D. M. K. Putonissæ Martis. An inscription found in the village of Colombiers, in the diocese D'Usez (*Voyage littéraire de D. Martenne et de D. Durant, Première Partie*, Paris, 1712. p. 313), shows us that Mars had in Gaul, Pythiæ, or priestesses, having the gift of ventriloquism.

§ Iamblich., *Vita Pythagor.*, cap. 28. Pythagoras was born at Suma, about the year 608 B.C. His father, Menarchus, was a person of distinction, and therefore capable of affording his son

* Quoted from a record of Abbé de la Chapelle, in *Brewster's Nat. Magic*, p. 172.

At the command of the chief of the Gymnosophists of Upper Egypt, a tree uttered words, in the presence of Apollonius, with a clear voice, resembling that of a woman;* in both these cases, the voice was that of a ventriloquist, placed in a convenient situation; and to the same origin we may, with probability, ascribe the oracles said to proceed from the oaks of Dodona.† It is by astonishing his auditors by ventriloquism, that the Chinese prophet, or magician, persuades them that they listen to the voice of their divinity. This art was not unknown to the black slaves at Saint

every advantage which education can bestow; and Pythagoras lost no opportunity of profiting by them, both in respect to bodily and mental vigor, and energy. He traveled expressly to acquire knowledge, and submitted to much severe discipline for that purpose. In the temple of Thebes, and by a residence of twenty-two years in Egypt, he became deeply versed in all the learning of the Egyptians, which he at first unsuccessfully endeavored to transfer to Samos; but afterward succeeded by affecting mystery, living in a cave, and descending to practice on the credulity of his countrymen, who, having discovered his frauds, forced him to leave the island. At Crotona, where he settled, he taught the virtues of temperance, and made numerous proselytes among the most voluptuous and abandoned. He was, nevertheless, still an impostor, practicing for the sake of ambition. He lived upon vegetables, clothed himself in a long, white robe, allowed his beard to grow, and impressed upon the multitude, that he had received his doctrines directly from heaven. These he publicly delivered under the veil of symbols; but those initiated in private were bound by a vow of silence, not to divulge what they had acquired. He maintained the doctrine of the metempsychosis, or the transmigration of the soul; and pretended that he remembered being the person in whom his soul had resided before he became Pythagoras. His doctrine of the universe was that lately revived in the "Vestiges of Creation," namely:—that the universe was at first a shapeless mass; and all subsequent forms progressed through certain gradations, until they arrived at perfection. He invented the fanciful doctrine of the music of the spheres; and he was supposed to have heard it through the favor of the gods. He died 497 B.C., it is supposed at Metapontum, where his disciples paid superstitious honors to his memory.—Ed.

* Philostrat., *Vit. Apollon.*, lib. vi., cap. v.

† It is more probable, that the priests were concealed in among the oaks, and delivered the responses which were attributed to the trees.—Ed.

Thomas. About the commencement of the last century, one of these unfortunate people having caused a voice to emanate from an earthen figure, and even from a cane, carried by one of the inhabitants, was burned alive as a sorcerer.* In our own days, the credulous planter has been known to consult a noted sorcerer, in other words, a ventriloquist slave, who, in order to retain his confidence, was not backward to devote even the innocent to death or torture, for a real or an imaginary crime, the authors of which, he is required, by his divinations, to discover and to name.†

A blind, and even eager credulity favored the subtile and audacious deceptions that maintained the credit of the oracles. But a day at length arrived, in which the lessons of philosophy were spread among the enlightened classes; and from that moment credulity was prostrated before the spirit of inquiry. Almost at the same time arose the Christian religion, which in its progress exposed the miracles of Polytheism with such a scrutinizing observation, that it succeeded in rendering the manœuvers of which, till then, the diviners had availed themselves, not only difficult but almost impracticable. Such were the real causes of the gradual cessation of the most celebrated oracles. To replace those fallen into disrepute, the Polytheists endeavored to bring new ones into notice; but these, being narrowly watched from their birth, never obtained an extended or permanent confidence. Oracles necessarily disappeared sooner than miracles, the execution of which, as they depended on scientific acquirements, continued to command the admiration, not only of

* In 1701.—Labat., *Nouveau Voyage aux îles françaises de l'Amérique*, tome ii., pp. 64, 65.

† I learned this fact from a credible witness.

the credulous but also the skeptical who were unable to discover their origin, as long as that knowledge remained enveloped in mystery.

It is not correct, however, to assume that, in the delivering of oracles, all was intentional imposture and deceit. Those who uttered them were often under the influence of real delirium. M. de Tiedmann very plausibly believes, that the German priestesses, prophesying amid the din of the tumult of waters, and fixedly regarding the eddies formed on the rapid course of the river,* would, in such a position, soon become vertiginous. Something similar may be seen in the cataleptic state into which the magnetizers throw their subjects who are weak in organization, and still more feeble in mind, by disturbing the imagination and fixing attention for a considerable time on a succession of monotonous and absurd gestures.

Music, exercising its well known influence, is calculated to dispose an enthusiast to believe that the gods adopt it as a medium of revelation. Even among the Hebrews, as among other people of antiquity, the prophet had recourse to music to maintain the prophetic elevation of his spirit.† The prophets, or Barvas, of the Billhs, in Hindostan, excite their minds by sacred songs and instrumental music, during which they are seized with a kind of frenzy, attended with extravagant gestures, and end by giving utterance to what are regarded as oracles. The Barvas receive disciples, and, after some preparatory ceremonies, subject them to a kind of musical ordeal. Such as are not

* Plutarch, in *Cæsar.*, cap. xxi.—S. Clem., *Alex. Stromat.*, lib. i.

† Elisha, after declaring that except for the presence of Jehosaphat, he would not prophesy for Jehoram, says, "But now bring me a minstrel. And it came to pass, when the minstrel played, that the hand of the Lord came upon him."—2 *Kings*, chap. iii., v. 15.

moved by it to the borders of ecstatic frenzy, are immediately rejected, as incapable of being the recipients of divine inspiration.*

Unless the mind is excited, there can be no belief in oracles; and to produce this in the auditor, the excitement must be experienced by the utterer. In the temples of Greece and those of Asia, beside the use of flutes, of cymbals, or of trumpets, more powerful agents were summoned, when heavenly interpretations were to be delivered.

When a dream was the chosen mode of revelation, the youngest and most simple persons were selected as best adapted to succeed in this divination; and they were assisted in it by magical invocations, and by the incense of particular perfumes.† Porphyry acknowledges that such processes are calculated to inflame the imagination, and Iamblichus expresses the same opinion in different words, asserting that such preparations render a man worthy of approaching the Divinity.

At Didyma,‡ previous to prophesying, the priestess of the oracle of Branchides inhaled for some time the vapor of a sacred fountain.§ The oracle of the Colophonians, at Claros, was delivered by a priest, who prepared himself by drinking the water of a basin inclosed in the grotto of Apollo. This beverage is said to have shortened his days.|| It is well known in how strange a manner the Pythia was exposed to the vapor exhaled from

* *Nouvelles Annales des Voyages*, tome xxvii., pp. 333, 334.

† Iamblichus, *De Mysteriis*, cap. xxix.

‡ A place near Miletus, where the Branchidæ, a family who were the hereditary priests of the temple of Apollo Didymæus, held their oracle.—Ed.

§ Iamblichus, *De Mysteriis*, cap. xxv.

|| *Bibentium breviore vitâ.*—Plin., *Hist. Nat.*, lib. ii., cap. cv.—Iamblichus, *De Myst.*, cap. xxv.

the cavern of Delphi.* Pindar and Plutarch assure us, that the escape of the sacred vapor was accompanied by a sweet odor, which penetrated even to the cell, where those who came to consult awaited the responses of the oracle.† Whether natural perfumes were combined with the physical agents, or that the priests sought with the assistance of artificial perfumes to conceal the fœtid odor of the gas which issued from the cavern, can not now be determined. But, after a time, the Pythia ceased to answer: the exhalations, also, at length ceased; and owing to that cessation, the cotemporaries of Cicero accounted for the silence of the oracle. Cicero rejects this explanation with contempt; and, theologically speaking, it was absurd, but quite admissible as a physical reason for the silence of the oracle.‡ Centuries later, Porphyry§ unhesitatingly affirms that the exhalations of the earth, and the water of certain fountains, tended to excite divine ecstasies, in the midst of which the oracles were delivered. Inebriated with the gas that exuded beneath the sacred tripod, the Delphic priestess fell into a nervous, convulsive, and ecstatic state, against which she might struggle without being able to regain her self-possession. While out of her senses, and under the sway of an

* S. Johan. Chrysost., *Homelia*, xxix. super cap. xii., Epist. i. *ad Corinth.*

† Pindar., *Olym.* vii., ver. 59.—Plutarch., *De Oracul. defect.*

‡ Cicer., *De Divinat.*, lib. ii. The original temple, if it could be called such, at Delphi, was a hut made of boughs of laurel; but it afterward became a splendid edifice. It was three times destroyed by the accidents of war and of fire, and three times rebuilt. The responses were at first delivered in verse, but on some one remarking that Apollo was the worst versifier in Greece, they were afterward delivered in prose. The tripod on which the Pythia sat, is still in existence at Constantinople, where it was carried by Constantine; but the hollow column on which it stood, remains in the cavern.—Ed.

§ Euseb., *Præp. evangel.*

overexcited imagination, she uttered some words, or mysterious phrases, from which it was the priest's care to extract the revelations of the future.* All this is as natural as the sinking languor which succeeded this excessive disorder of body and mind, and which sooner or later proved mortal.

We may thus see, that it is in vain to follow the history of miracles and of prodigies, or to think of examining separately what appertains to the history of ancient science. When the priest of Claros was affected by a beverage destructive to his health, when the priestess of the Branchides, and the Delphic Pythia, exposed themselves to gaseous exhalations, the power of which was augmented by other physical agents; when the prophetesses of Germany, rapt in contemplation, sat immovable on the borders of torrents; when the Barvas abandoned themselves to the power of music, whose influence over them was fostered by their religious education, no results, in all these cases, could be more natural than the dreams, the delirium, the intoxication, the vertigo, and the frantic excitement, that were consequent on their proceedings. The subsequent inspiration, or rather the oracles attributed to it, were but the impostures of priestcraft; but science presided over their craft, and regulated the causes of the vertigo, and of the

* The tripod was placed over the mouth of the cavern, whence issued the vapor, which was supposed to be carbonic acid gas; but that is not sufficiently intoxicating; and I suspect the gas was sulphurous acid, as it caused almost frantic delirium, as already mentioned (note, p. 154). The secondary effects of this gas are also similar to those experienced by the Delphic priestess, namely, vertigo, nausea, and great weakness of the lower extremities. The Piachi, or Mexican priests, uttered their responses, or oracles, when drunk with the fumes of tobacco, which, on these occasions, was thrown upon the fire of the altar, and the fumes inhaled by the priests.—Ed.

frenzy, and pointed to the advantages to be derived from them by the Thaumaturgists.

Simple observations, which require nothing beyond common reflection, and which we scarcely venture to range under the head of science, have also been the foundation of oracles. Instructed by general laws, the priest was able to risk a prediction respecting the soil and the climate of a country, by consulting the entrails of particular victims. The science of the Auspices, and of the Augurs, was also founded on observations appertaining to physics, to meteorology, or to natural history.

In Livonia and in Esthonia, a religious opinion, anterior to the establishment of Christianity,* forbade the agriculturist to destroy by fire the crickets (Gryllus *domesticus*) that he should find in his habitation; as those insects which the crickets kill would tear his clothes and his linen to pieces. When about to build a house, he was directed to observe what species of ant showed itself first at the appointed place. The appearance of the great *fawn-colored* ant, or the *black* ant, was regarded as pointing out the spot as a favorable site; but should the small *red* ant appear, another spot was to be selected. This precaution was proper, as this little insect makes the greatest havoc in the provisions and stores of man, while the two former species, by preying upon the latter, necessarily put an end to its ravages. In the same manner, the cricket devours other insects; and it is especially destructive of ants; a fact which has entitled it to consideration, and in many countries rendered it a sacred insect. There is no difficulty in pre-

* Debray, *Sur les préjugés et idées superstitieuses des Livoniens, Lettoniens et Esthoniens.—Nouvelles Annales des Voyages*, tome xviii., p. 114.

dicting to the man who destroys them, that he will suffer from the ravages of those insects of which it is the natural enemy.

From infancy, Naevius announced his future talent for the profession of an augur. In order to obtain a fine bunch of grapes, as an offering to the gods, he consulted the birds with as much success as sagacity :* he knew that by frequenting the spot where the grapes were ripe and abundant, their preference should lead him to the object of his search. A similar proof of juvenile sagacity was exhibited in our times. Gassendi, directing the attention of his school-fellows to the sky, as they stood under a tree, proved to them that the clouds, driven rapidly by the wind, moved over their heads, and not the moon, although she appeared the moving object. In the days of oracles we should have beheld in him an embryo prophet.

The Thaumaturgist has always proposed to himself one great end ; and, in order to attain it, he has not scrupled to make use of all means indifferently, whether charlatanism, tricks, allegories, natural phenomena, observations, reasoning, or true science. But of all the means employed, perhaps the most powerful, at least that which increased the efficacy of all the rest, was the inviolable secrecy which, by general consent, concealed his operations. To envelop events in the veil of mystery,† said the sages themselves, serves to raise veneration for those divinities, whose nature eludes the senses of man.

* Dionys., *Halic.*, lib. iii., cap. xxi–lvi.

† *Mystica sacrorum occultatio majestatem numini conciliat, imitans ejus naturam effugientem sensus nostros.*—Strabo, lib. *x*.

CHAPTER VIII.

Safeguards of the Mystery that surrounded the Occult Sciences.—Hieroglyphics, Idioms, and Sacred Writing.—Not understood by the Uninitiated.—Enigmatical Language of the Invocations.—Gradual and partial Revelations known in their Plenitude only to a small Number of Priests.—Oaths, and Falsehoods respecting the Nature of the Processes, and the Extent of Magical Operations.—Consequences of this Mystery: 1st. The Science of Magic was reduced, in the hands of the Thaumaturgists, to a Practice, the Nature of which, devoid of Theory, became in time Unintelligible; 2d. Great Errors universally prevailed, owing to Ignorance of the Limits that circumscribed this power; the Desire to penetrate into Secrets of Magic, and the Habit of attributing its Efficacy to the visible and ostensible Processes of Science.

Ought we to be astonished that the writings of the ancients discover only scattered traces and imperfect notions of the Occult Science; or even that some portion of the science is entirely lost? The student of history well knows that, in former times, not only the more refined pursuits, but also all the treasures of real knowledge, were under the careful guardianship of the genius of mystery, and, therefore, more or less inaccessible.

How many causes concurred to maintain that power! The subsistent influence of the settled form of civilization; the rites of initiation, subsequently adopted by the schools of philosophy; the value of exclusive possession; the well grounded fear of drawing on itself the hatred of men who cherished this property with a jealous pride; and, lastly, above all, the necessity of keeping mankind in darkness, in order to retain the control over him, with the desire to preserve what formed, as it were, the patrimony of the enlightened classes, the guaranty of their honors and their powers.

This last consideration did not escape the obser-

vation of a man, who knew how to enhance by sound and deep philosophy the value of his extensive erudition. Michaelis* remarks, that a universal language, invented by the learned, and exclusively for their use, would secure to them the sole possession of science. "The multitude would resign themselves to the governance of those learned impostures, as was the case in Egypt, when all discoveries were concealed under the veil of hieroglyphics." For instance, were the discoveries relative to electricity only expounded in such a language, what could be more easy than to metamorphose the phenomena of that science into apparent miracles, and establish a sacred tyranny by means of false wonders? "Thus the opportunity would tempt, and the facility of deception augment, the number of impostors."

One step farther, and Michaelis might have observed that his hypothesis was the actual history of antiquity; that almost all nations have possessed some species of sacred writings, not more intelligible to the vulgar than the hieroglyphics of Egypt. The Roman pontiffs, in their rites, made use of names and words known to themselves alone; the few we are acquainted with, relate only to ceremonials; those having reference to real science have been too carefully concealed to reach us.

This is precisely what we learn from Lydus,† relative to the people from whom the Romans borrowed their religious system. The Etruscans, he informs us, were instructed in divination by the

* Michaelis, *On the influence of opinions on language, and of language on opinions*, 1759. John David Michaelis, a native of Halle, Professor of Theology and Oriental Literature in the University of Göttingen. He is celebrated for his biblical and Oriental researches. It is said that his religious opinions were never very firmly fixed; but his writings are strikingly demonstrative of his reverence for the Sacred Scriptures.—Ed.

† Lydus, *De Ostentis*, cap. iii.

Lydians, before the arrival of Evander,* the Arcadian, in Italy. At that time there existed a form of writing different to that afterward made use of, and which was not generally known; and without its aid no secret would have long remained hid from the profane. Tarchon, the ancient† (anterior to the cotemporary of Æneas of that name), had written a book upon the mysteries and the religious rites of divination; in which he represented himself as interrogating Tages (the miraculous child, born from a furrow of the earth), precisely as Arjuna questions the god *Krishna*, in the *Bhaghuat Ghita*.‡ The questions of Tarchon were expressed in ordinary language; but in his book the answers of Tages were conveyed in ancient and sacred characters; so that Lydus, or the writer whom he copies, was not able to do more than conjecture the sense by reflecting on the questions themselves; and from some passages relating to them in Pliny and Apuleius,§ Lydus insists on the necessity of

* The son of the prophetess Carmente, and a king of Arcadia. He was driven from Arcadia on account of an accidental murder. He retired to Italy, drove out the aborigines, and acquired the sovereignty of that country. He raised altars to Hercules in his new possessions—introduced the Greek alphabet, and many of the customs of Arcadia. He was a cotemporary of Æneas, and assisted him in his wars with the Rutuli. He was deified after his death, and an altar erected to him on Mount Aventine.—Ed.

† Photius says, that Tarchon instructed the Etruscans in the Mystical Sciences.—*Biblioth. Cod.*

‡ It is a curious fact, that the name Krishna in Irish, as well as in Sanscrit, is applied to the sun.—Ed.

§ Lucius Apuleius, a Platonic philosopher of the second century. He was born at Madauras, in Africa; and, after studying at Carthage, Athens, and Rome, he traveled with the intention of obtaining initiation in the mysteries which then enveloped many religions, and almost all science. He became a priest of Osiris, and having married a rich widow, he was accused by her relations before Claudius Maximus, Proconsul of Africa, of having employed sorcery to obtain her hand. He wrote numerous works in prose, and in verse; the best known of which is the Golden Ass, a satire on the absurdities of Magic, and the crimes of the Priesthood. It is a romance, but written with so much re-

not clearly exposing the secret science, and of concealing it from the profane by fables and parables; it is only in this spirit that he writes on miracles. The same opinions are contained in the works of a writer of the sixth century, and they must, indeed, have been anciently very widely spread.

We must not, however, imagine that the Egyptian priests trusted entirely to the impenetrability of their hieroglyphics. When Apuleius obtained the first degree of initiation, the books destined for his instruction were brought by the priest from the most secret part of the sanctuary. It was not enough that the images of diverse species of animals were used in place of stenographic writing; one part of these books was written in unknown characters; and the language in all of them was further preserved from the curiosity of the profane,* by the addition of numerons accents, absurd and varied in their forms, and undoubtedly changing the value of the letters above which they were placed.

In Egypt, and probably also in the temples of other countries, these mysteries were concealed under a second envelop, namely, the language in which the invocations were couched. Chaerémon† gave instructions how to command the genii, in the name *of him who sitteth on the Lotus—borne in a vessel*, or who *appears different in each of the signs of the Zodiac.* These marks unequivocally distinguish Osiris, the sun-god. Emanating from an as-

semblance to truth, that many persons have believed all related in it as true history.—Ed.

* "*De opertis adyti profert quosdam libros* litteris ignorabilibus, *prænotatos*, partim figuris cujusce modi animalium *concepti sermonis compendiosa verba suggerentes*; partim nodosis, et in modum rotæ tortuosis capreolatimque condensis apicibus, a—curiosâ profanorum lectione munitos."—Apuleius, *Metamorph.*, lib. xi.

† Porphyry, quoted by Eusebius.—*Præp. Evang.*, lib. v., cap. viii. et ix.

tronomical religion, the sacred formularies transferred the language of astronomy to magical operations.

We shall prove that the sorcery and magic of the moderns were, in a great measure, composed of the relics of the occult science, formerly preserved in the temples. We can trace in it that confusion of language, so much the more striking, that nothing could give rise to it at an epoch distant from the reign of astronomical religion ; so that we are authorized to affirm that it is referable to a period, when its expressions were comprehended, its origin known and revered. A sorcerer of Cordova* invoking a star, conjured it in the name of the *angel-wolf:* now, we know well that the wolf in Egpyt was emblematical of the sun and of the year; yet this example, were it a solitary one, would prove little. But on examining the fragment published by J. Wierius, under the title of *Pseudo-Monarchia Dæmonum*,† we can not fail to see in it the disfigured vestiges of a celestial calendar. In the pretended list of the genii obedient to the invocation of the Theurgist, we find one whose double face recalls that of Janus—the emblem of the close and the opening of the year.

Four kings are stated to preside over the four cardinal points; the *Man*, the *Bull*, the *Lion*, all three-winged; and the *Crocodile*, which, in the

* Llorente, *Histoire de l'Inquisition*, cap. xxxviii., tome iii., page 465.

† J. Wierius, *De Præstigiis dæmonum et incantationibus ac veneficiis.*—Basileæ, 1583. The magicians give pompous titles to this fragment. They call it sometimes *Liber empto-Solomonis ;* but in all probability it is but an extract of a more extensive work that bore this name, and the authority of which is even cited in Wierius's work. Joannis Wierius was a native of Graves, in Brabant. He flourished in the middle of the sixteenth century. He studied both theology and medicine, and was a man of very extensive erudition.—Ed

Egyptian planisphere stands instead of the *Scorpion;* and these are the ancient solstitial and equinoctial signs. Some genii, we are told, inhabit the celestial signs; one in particular resides in *Sagittarius.* Among them may be found the *dragon* (*draco*), the *marine monster*, the *hare* (*lepus*), the *crow* (*corvus*), the *dog* (*canis major*), the *virgin* (*virgo*), the *little horse*, whose name figures among the constellations. Some other genii, described with more detail, have distinguishing characters, similar to those ascribed to the genii of the stars, months, decades, and days, in the Indian and Persian spheres, and the Egyptian calendar.* It is not, therefore, rash to presume that these terms and astronomical allegories were introduced by religion into the ceremonial of the occult science; and it must be acknowledged they not only tended to make this study complex, but also to render it obscure; because the mind involuntarily established an erroneous connection between the objects allegorically presented and the results, totally foreign to the religions whence they were derived.

Borrowed, as it may sometimes have been, from a language distinct from that of astrology, the mystery would have been not less difficult to penetrate, nor less fitted to mislead the uninitiated, who might endeavor to pierce its obscurity. A modern example, and one apparently futile, will explain this remark.

"Populeam virgam mater regina tenebat."

If I assert that it is necessary to remember this Latin verse, in order to insure success in a compli-

* *Sphærarum Persicæ, indicæ et barbaricæ ortus*, ex libro Aben Ezrae Judæorum doctissimi.—*Monomœriarum ascendentes cum significationibus et decanis suis Ægyptiacis.*—J. Scaligeri, *Notæ in Manilium*, pp. 371–384 et 487–504

cated trick at cards, persons familiar with this kind of amusement will readily conjecture that, by their conventional numerical value, the vowels mark the number of cards, or points, which it is necessary consecutively to add, or to cut off. They will easily conceive that the same means may serve to design the proportions of substances necessary to combine in a chemical experiment; and they will recognize the fact that five or six verses, composed of barbarous words, and constituting no sense, were in a similar manner employed, during several ages, to indicate the different forms that may be taken by syllogism in argument.

But let us transport ourselves into times when the intelligence of man was in this manner awakened by any experiment; and we should find in the verse borrowed from a foreign language, a magic formulary, similar to those repeated, but not understood, by the Greeks and the Romans. The curious will not suspect that its efficacy rests on the respective position of the vowels; they will seek it in the sense of the words, if they can attain a knowledge of them; but ignorance will establish a mysterious relation between the art of divining the thoughts, and the Latin line, which may thus be translated, "*a branch of poplar held by a queen and a mother.*"

Even these obstacles were not sufficient to free from alarm the jealous uneasiness of the possessors of the sacred sciences.

From the expressions of several writers, we may conclude, with probability, that, in the process of initiation, all the secrets of nature were revealed to the adept. That these revelations were bestowed upon him by slow degrees, we may be satisfied by the example of Apuleius. It was only after a length of time, and after several successive initia-

tions, that he arrived at the highest degree ; nevertheless, he congratulated himself on having obtained, in youth, an honor and a perfection of knowledge usually reserved for old age.*

Whatever may have been the extent of the revelations made to the initiated, we may ask, did the efficient causes of the prodigies form a part of them? We are inclined to think, that soon after the institution of the initiations, the knowledge of these causes was reserved for a class of priests, who, in several religions, were known as a separate body, under a distinct name. Mr. Drummond† is of opinion that the *Chartomi*, Egyptian priests, possessed alone, to the exclusion of the inferior priests, the knowledge of all the hieroglyphics. We may also inquire, what was the reason that the books of Numa, discovered nearly five centuries after the death of that prince, were burnt at Rome, as capable of doing injury to religion?‡ What but chance, which, instead of throwing them into the hands of the priests, had first given them to the inspection of the profane ; and the volumes exposed, in too intelligible a manner, some practices of the occult science, cultivated by Numa with success. Two of these books, if we may credit tradition, treated of philosophy,§ a name which, it is well known, was often applied, in ancient times, to the art of working miracles ; and it was in perusing the memoirs left by Numa, that his successor, Tullus Hostilius, discovered one of the secrets of that art : an imprudent experiment,|| which proved fatal to its possessor.¶

* Apul., *Metamorph.*, lib. xi. ad finem.

† S. W. Drummond, *Memoir on the Antiquity of the Zodiacs of Esneh and Dendera*, pp. 19–21. ‡ *Valer. Max.*, lib. i., cap. i., § 12.

§ *Tit. Liv.*, lib. xl., cap. xxix.—Plin., *Hist. Nat.*, lib. xiii., cap. xiii.

|| See Chapter xxiv.

¶ Tullus Hostilius was the third King of Rome after Numa.

To these various precautions was added the solemnity of a terrible oath, the breach of which was infallibly punished with death. The initiated were not permitted to forget the long and awful torments of Prometheus, guilty of having given to mortals the possession of the sacred fire. Tradition also relates, that as a punishment for having taught men mysteries, hitherto hidden, the gods cast thunderbolts on Orpheus: a fable probably derived from the nature of the death of one of the priests of the Orphic mysteries, that bore the name of the founder of the sect.* Until the downfall of Paganism, the accusation of having revealed the secrets of initiation was the most frightful that could be laid to the charge of any individual, especially in the minds of the multitude, who, chained down to ignorance and submission by the spirit of mysticism, firmly believed, that, were the perjured revealers permitted to live, the whole nation would be sacrificed to the indignation of the gods.

Falsehood was another resource and security of mystery; but this is one familiar in all ages; and, unhappily, still practiced by the votaries of commerce always fearful of losing the benefits of exclu-

The cause of his death is not precisely known; for although some suppose that he was killed by lightning, the result of a magical process, conducted in his palace, yet, others assert that he was murdered by Ancus Martius, who at the same time set fire to the palace, in order to originate the belief that the impiety of Hostilius had been thus punished by Heaven.—Ed.

* Pausanias, *Bœotic.*, cap. xxx. Two epigrams of the Anthology suppose that Orpheus died by lightning. It is said there is some reason for doubting the existence of Orpheus: "*Orpheum poetam docet Aristoteles nunquam fuisse,*" says Cicero, although that orator himself believed in the existence of the musician: but it is a matter of little moment. The mysteries termed Orphic were introduced into Greece from Egypt, prior to the worship of Dionysius, which was also of foreign origin. It is supposed that the fable of the destruction of Orpheus by the Thracian women in a Bacchic festival, was merely typical of the victory of the new over the old religion.—Ed.

sive possession.* The magic art had stronger reason to disseminate lies regarding the nature and extent of its power. Had it been openly exposed and rendered familiar, the admixture of valuable knowledge, puerilities, and charlatanism, of which it consisted, could not have commanded either admiration or obedience.

Aglaonice,† having been able to predict an eclipse at the moment of its occurrence, persuaded the Thessalians that, by her magical incantations, the moon was obscured and forced to descend upon earth.‡ Such marvelous virtues were ascribed to the plant named *baaras*, or *cynospastos*,§ that it

* The Indians, who alone traded in cinnamon, affirmed that it was not known whence this aromatic substance came; and that it was procured by obtaining the nests, constructed of branches of cinnamon, by particular birds.—Ælian, *De Nat. Anim.*, lib. ii., cap. xxxiv.; lib. xvii., cap. xxi. The censure of our author, however, can not be justly applied to modern merchants, who, desirous as they may be to obtain all the advantages which monopoly can secure to them, do not condescend to employ falsehood to advance their plans and render their speculations successful.—Ed.

† Aglaonice was the daughter of Hegeman, a Thracian poet, and versed in astronomy and the doctrine of eclipses.—Ed.

‡ Plutarch, *De Oracul. Defectu.*

§ It was also called Aglaophotis. It is the Atropa *Mandragora* of modern botanists, the Mandrakes of the Old Testament, for which Rachel bargained with Leah. The grossest superstitions are employed in taking up the root of the mandrake; and its virtues were supposed to depend altogether on the mode in which this was accomplished. The earth was loosened, and a cord fastened around the root, with the opposite end tied to the tail of a dog: the poor animal was then whipped so as to make it run forward, and thus to drag the root out of the ground. "In the mean time," says Bulleine, speaking of those engaged in taking it up, they "stopp'd their own eares for feare of the terrible shriek and cry of the mandrack. In whych cry it doth not only dye itselfe, but the fear thereof killeth the dogge, or beast which pulleth it out of the earth."* Shakspeare refers to this when he makes Juliet exclaim:—

"And shrieks like mandrakes torn of the earth,
That living mortals, hearing them, run mad."

This belief, and the supposed virtue of the root against barren-

* *Bulwarks of defense against sickness*, 1573, fol. p. 41.

was important for the Thaumaturgists to retain it entirely for their particular use. Thence sprung the assertion that it could not be pulled out of the earth without the loss of life, unless by the employment of some singular precautions, the details of which are given by Josephus, with all the gravity of conviction.*

Such, in general, was the policy which the Thaumaturgists employed to mislead men, as to the manner of attaining their ends, by the use of certain ostensible proceedings which, in reality, were altogether indifferent and useless. To throw an appearance of enchantment and supernatural agency around operations, often so simple, that apart from the deceptive covering of fraud and jugglery, and left open for inspection, they would have been quickly understood, and easily imitated, by any one. In short, to load the expression of real facts with false or futile accessories, or, according to them, "*to hide the discoveries of the wise, from a multitude unworthy to possess them.*"† These are the words of Roger Bacon; they demonstrate that the same policy existed in the Middle Ages; but its origin may be traced to the earliest times, in which men of research were ambitious of securing for their acquirements a supernatural reputation,‡ and an incommunicable nature, in order to exalt

ness afforded ample opportunity for impudent impostors to impose, in an extraordinary manner, on the credulity of the vulgar. —ED.

* Fl. Joseph., *De Bell. Judaic.*, lib. vii., cap. xxiii.—Ælian, *De Nat. Animal.*, lib. xiv., cap. xxvii.

† *Quæ philosophi adinvenerant, in operibus artis et naturæ, ut secreta occultarent ab indignis.*—Rog. Bacon, *De secret. oper. art.*, cap. i.

‡ Thus it was asserted, that instructed by a revelation, Elizabeth, the wife of Charles I., King of Hungary, in the beginning of the fourteenth century, discovered the spirit produced by the distillation of alcohol on rosemary, and known by the name of Hungary water.—Boquillon, *Dictionnaire biographique*, tome i., p. 208.

themselves above ordinary humanity, and to wield an influence over the rest of mankind.

What were the effects, generally, on the human mind in the infancy of science, when it was cherished by men of jealous habits, so contrary to the liberal philosophy of the present day,* which finds its noblest gratification in the duty of imparting its treasures and its discoveries?

"The ancients," says Buffon, "reduced all the sciences to practice. All that did not immediately concern society, or the arts, was neglected; and, as they regarded man only in the light of a moral being, they would not allow that things of no palpable utility were worthy of occupying his attention."† This universal precept was applied with force to the study of the occult science; but nothing was expected from the knowledge it imparted, except the power of working miracles; and all that did not lead to this result was regarded as unworthy of attention. From such a course, the consequence could only have been the acquirement of a partial knowledge, accompanied with great ignorance in other respects; and, instead of a science, whose connected parts so depend upon and suggest one another that the unity of the whole effectually preserves the details from oblivion, every fact held an isolated position, and ran the risk of being altogether lost, a danger rendered more probable every day by the increase of mystery.

If any one can remain skeptical regarding these facts, he may convince himself by reference to the

* About two hundred years ago a book was published, showing that learned works should be written in Latin, and not in French; because, says the author, great evils have resulted from the communication of the secrets of science to the people.—Belot, *Apologie de la langue latine, etc.* 1637.

† *Discours sur la manière de traiter l'Histoire naturelle.—Œuvres de Buffon,* tome i., pp. 52, 53.

analogy displayed in the progress of alchemy prior to the rise of true chemistry. We have there a type of the empirical manner in which the sciences were studied, cultivated, and fostered in the ancient temples. The priests searched after, and sometimes produced, astonishing phenomena; but neglecting the theory of the processes, and preserving no record of the means employed, they rarely succeeded twice in obtaining the same results. Their great object was to conceal the processes, and to retain exclusive possession of their secrets. But what is now less valued than their labors, or less known than their discoveries? It is difficult to cite an example more ancient than eighty years back. A prince, San Severo, occupied himself, with some success, in chemical experiments, at Naples; for example, he had obtained the secret of penetrating marble with colors, in such a manner, that in cutting plates from it, each newly exposed surface presented a repetition of the colored figures designed on the exterior.* In 1761, he exposed human skulls to the influence of various reactives, and subsequently to the heat of a glass-blower's furnace; but kept so careless an account of the processes, that, from his own acknowledgment, he could not hope to arrive at the same result a second time. The product of the last mentioned experiment was a vapor, or gas, which became illuminated at the approach of flame, and burned several months in succession, without any apparent diminution of the materials (the parts lost by evaporation were more than replaced by the combination of oxygen during the combustion). San Severo imagined that he had found the secret of inextinguishable lamps; but he would not divulge the process, lest the vault, in which the princes of his

* Grosley, *Observations sur l'Italie*, tome iii., p. 251.

family were inhumed, should be deprived of the distinguishing mark with which he hoped to honor it, namely, that of being lighted by an everlasting lamp.* Had he labored like a philosopher of the present day, the name of San Severo would have been linked to the important discovery of the existence of phosphorus in bones; for it was, undoubtedly, the slow escape of phosphorus, in a gaseous form, that caused the phenomena he obtained. But he operated like a Thaumaturgist, and his name is forgotten with his works; while science gives honor to Gahn and Scheele, who, eight years later, in 1769, established the fact, and published the process, by which phosphorus might be eliminated from bones.†

The comparison drawn between the early labors of modern chemists and those of the Thaumaturgists fails, perhaps, in one important point. While the former were free to choose the objects of their researches, it is doubtful whether, in the temples, the same liberty was allowed to the latter. We are led to this conclusion, by an obscure and very curious passage in Damascius.‡ At Hierapolis, in Phrygia, the temple of Apollo was placed near a cavern abounding with hot springs; whence arose dangerous exhalations, which extended to a

* See the four letters written by him on the subject, translated into English, by Christopher Hervey.—*Letters from Italy, Germany, &c.*, vol. iii., pp. 408–436.

† Bones are composed of phosphoric acid, lime, and some animal matter. In order to procure the phosphorus, the bones are calcined, then ground to powder, and acted upon by sulphuric acid, which takes away a large portion of the lime, and leaves the remainder combined with a large portion of phosphoric acid. The super-phosphate is then dissolved in water, and, after the evaporation of the solution, the residue is distilled with charcoal, which abstracting oxygen, the acidifying principle, from the phosphoric acid, phosphorus is formed, and distills over into the receiver, which contains water kept cold; and in which it congeals.—Ed.

‡ Damascius, *Apud Phot. biblioth.*, cod. 242.

great distance, and into which the initiated alone could enter with impunity. One of them, Asclepiodotus, by the combination of various substances, succeeded in producing a gas resembling that of the sacred cavern.* "Thus despising, and rashly violating, the laws of the priests and the precepts of the philosophers." Such are the expressions of Damascius; and, in quoting them, may we not exclaim, how powerful and how awful must have been the vow of secrecy required of the priests and the philosophers; since, in the sixth century of the Christian era, we find Damascius still employing a term of reproach in recording the scientific imitation of a natural phenomena, exalted into a miracle by the spirit of Polytheism!

Thus knowledge, straightened in action, was concentrated in a small number of individuals; deposited in books, written in hieroglyphics, or in characters legible only to the adept; and the obscurity of which was further increased by the figurative style of the sacred language. Sometimes, even the facts were only committed to the memory of the priests, and transmitted by oral tradition from generation to generation. They were thus rendered inaccessible to the community, because philosophy and chemistry, being destined to serve a particular object, were scarcely heard of beyond the precincts of the temples; while the development of their secrets involved the unveiling of the religious mysteries. The doctrines of the Thaumaturgists were reduced, by degrees, to a collection of processes, which were liable to be lost

* It is probable that this vapor was sulphureted hydrogen gas, which can be artificially produced by acting on iron pyrites, with water, aided by sulphuric acid; and which, although extremely dangerous to persons introduced for the first time into a concentrated atmosphere of it, yet becomes innocuous to those who are gradually accustomed to breathe it.—Ed.

as soon as they ceased to be habitually practiced. There existed no scientific bond by the means of which one science preserves and advances another; and thus the ill combined doctrines were destined to become obscure, and finally to be extinguished, leaving behind them only the incoherent vestiges of ill understood and ill executed processes.

A condition of things, such as then existed, we do not scruple to say, is the gravest injury that can happen to the mind of man, from the veil of mystery cast by religion over physical knowledge. The labors of centuries and the scientific traditions derived from the remotest antiquity are lost in consequence of the inviolable secrecy observed respecting them; the guardians of science are reduced to formularies, the principles of which they no longer understand: so that, at length, in error and superstition, they rise little above the multitude, which they too long and too successfully have conspired to keep in ignorance.

Let us now quit the enlightened caste, which, from its own act, gradually ceased to merit so high a title, and place ourselves for a while among the credulous multitude, whose information was confined to the fact, that the sublime art of working miracles was preserved, and incessantly practiced in the depths of the sanctuaries. Ignorance, superstition, and the love of the marvelous, were found to exert an unlimited influence over the greater number; there was nothing that might not be hoped for, or feared, from these sources. But in some more energetic minds, curiosity, cupidity, and pride awakened the wish and the hope of being able to penetrate the mysteries. This desire rather favored than injured the interests of those in authority; they, therefore, neglected no means of encouraging it by amusing credulity, and

by holding out exaggerated promises. To the existence of the hope they were no strangers; and they so managed, that deceitful information, erroneous indications, and false explanations, should reach the ear of the uninitiated, and mislead the profane, who might, perhaps, by persevering researches, or by some favorable chance, possibly stumble on the discovery of some of the sacred mysteries.

Let us again analyze the correctness of these ideas by experience. To say that chemistry and astronomy owe their birth to alchemy and astrology, and are thus the wise daughters of foolish mothers, is to judge falsely of the progression of the human mind. One child, Astronomy, gazes on the stars as they shine in the heavens, without imagining that they possess any influence over the course of events passing on earth: the other, Chemistry, admires the color and the brilliancy of a piece of gold or silver; and, if he is not misled, will no more imagine that it is within the range of art to fabricate a metal than to create a piece of wood or a flint. But when a people, acquainted only with the native gold deposited in their rivers, saw this metal extracted from a body displaying no outward indication of its presence, the belief was natural that various substances were capable of being transmuted into gold by means of a peculiar process, of which a few superior beings alone possessed the secret. The knowledge of such a wonderful art being passionately desired by the avaricious, caused attempts and inquiries to be multiplied and brought to bear on all the metals, on all the minerals, and on all the various bodies in nature; and thus Alchemy arose out of the ignorance of true science. From the observations of the stars, the return of the seasons, and several meteorologi-

cal phenomena, were predicted by the priest.* He regulated agricultural labors in a rational manner, and foretold its probable success with tolerable exactness. The ignorant men, therefore, under his direction, set no bounds in their own minds to the power of science; and doubted not that the futurity of the moral world, as well as that of the physical, was to be read on the face of the starry heavens. In this mistaken idea they were not undeceived by the priest; and, from the remotest times, astrology has held a place among the sacred sciences; and over a portion of Asia it still preserves the empire which it long exercised over the whole earth.

One cause, already referred to, concurred in the progress, or in the birth of error: this was the fallacious interpretation of emblems and of allegories. From the earliest times, both have been taken into the service of astronomy. Do not the Egyptian dynasties, cited by Manethon, apparently belong to the domain of history? Do not the epithets, also, which follow their names refer to men? For instance, "*Friend of his friends.*" "*A man remarkable for the strength of his limbs.*" "*He who increases the power of his father.*" Yet, in these pretended kings, Dupuis distinguishes the thirty-six decades which divide the Zodiac into periods of ten degrees each; and, in the titles given to them, he sees the indication of astronomical phenomena, corresponding to each decade.† Under the titles of Barbaric, Persian, or Indian spheres, Aben Ezra‡ has

* The two calendars of Ptolemy were regulated, one according to the Egyptian, the other according to the Roman months; and the Roman calendar, taken from Ovid, Columella, and Pliny, indicated diurnally the state of the heavens, and predicted that of the atmosphere.

† Dupuis, *Origine de tous les cultes*, tom. xii., (in 8vo.) pp. 116–126.

‡ Aben Ezra, or Abraham ben Moir ben Ezra, was a learned

collected and published three ancient calendars.* The first, believed to be that of Egypt, simply indicates the rising and the setting of the constellations in each decade. The second combines with this indication various allegorical figures. The third presents similar figures, and occasionally attributes to them sentiments which can not be rendered by the pencil, such as the intention to assassinate a father, or of returning home. The basis of the three calendars is the same; but the last, viewed alone, awakens ideas utterly irrelevant to astronomy. That similar allegories, distributed over certain portions of time, may have appeared to contain predictions referring to each of these divisions, is highly probable. If we examine an Egyptian calendar, this probability will be changed into certainty;† for, in one column we find, corresponding to each degree of the Zodiac, an emblem intended, as the title announces, to indicate the corresponding rising of the stars; and, in the second column, we observe the indication of the future character or destiny of any child born under the influence of such or such a degree; an indication always conforming to the nature of the emblem. Thus, if it represents a man bruising in a mortar, the child would prove laborious; but if an eagle was the sign, he would rise high, and be of an ambitious character.

This calendar is evidently the joint production of two laborers: the one has arranged a series of astronomical emblems from previous observations;

Jew of the twelfth century, who spent a considerable portion of his life in traveling, and was in England in 1159. He wrote a Commentary on the Old Testament, beside treatises on Mathematics, Physics, Astronomy, and Medicine.—Ed.

* J. Scaligeri, *Notæ in M. Manilium*, pp. 371–384.

† *Monomœriarum ascendentes, &c.*, J. Scalig., *Not. in M. Manil.*, pp. 487–504.

the other, deceived or the deceiver, has striven to divine the meaning of a book, which he did not understand, or to lead into the paths of error those who attempted to explain its meaning.

We are too ignorant of the interior philosophy of the school of Pythagoras to decide whether this sage professed in its literal, or in its figurative sense, the strange doctrine regarding the properties of numbers ascribed to him.* But we conceive the doctrine itself to have been at first the allegorical veil, and at a later period the superstitious envelop of a real science; a science, the vestiges of which may still be traced in Hindostan, where Pythagoras had promulgated his dogmas; and which, along with the bases of great astronomical calculations, in all probability, comprehended the principles and theories of a sublime arithmetic.

The somewhat recent discovery of a fragment of this science tends to support our conjecture.

Toward the end of the seventeenth century, the French astronomers learned, with surprise, that there existed in Siam a mode of calculating eclipses by successive additions, worked upon numbers arbitrary in appearance. The key to this method has been long lost by those who make use of it; perhaps, indeed, it was never possessed by them,†

* When we reflect upon the just and sublime notions of Pythagoras, respecting the motion of the earth, and the nature of comets, we can not avoid regretting that he should have entertained and taught the extravagant and fanciful speculations on numbers and harmony which are ascribed to him.—Ed.

† The great Tables of Logarithms published at Paris, by the "*Bureau du Cadastre*," had been calculated by a method similar to this. It was also a succession of additions and of subtractions, worked on numbers, arbitrary in appearance, by men who were not under the necessity of knowing the elements and the march of the calculation necessary to determine these numbers; and who, nevertheless, arrived at such precise results, that after the determination of a hundred logarithms, the possible error affected only the eighth decimal fraction.

the inventor having applied his genius to the construction of an instrument infallible in its results, while he refused to reveal the principle of its action. However that may be, let us suppose a similar feeling to actuate the philosophers who operated, before the eyes of the people, in ancient Asia, in Egypt, and even in civilized Greece. With the aid of numbers, combined according to the principles of a hidden science, it may be seen that they arrived at prognostications, and uttered predictions, which nature could not fail to verify on the day and at the moment indicated. Forced to attribute to these numbers the property, which, in fact, they possess, of producing correct predictions, how could the ignorant man refrain from ascribing to them other properties, and apparently not more marvelous qualities? He demanded from them, as from the courses of the stars which they served to measure, revelations of the future, and consulted the Babylonish numbers* with respect to his fate in life, as well as the nature and the moment of its termination. It is not without interest to observe how the theory of the mysterious properties of number pervades, in the same manner as in astronomical allegories, the instructions of magic. We are told that, among the spirits of darkness, the magicians enumerated seventy-two princes (six multiplied by twelve), and 7,405,926 demons of an inferior rank.† This last, apparently absurd number, is the product of six multiplied by 1,234,321. Is it necessary to draw observation to the fact, that 1,234,321, taking it right and left, gives the four numbers constituting the mysterious Tetractys of Pythagoras and of Pluto?

* . . . . . "neu Babylonios
Tentaris numeros . . . . ."
Horat., *Od.*, lib. i., od. xi., vers. 2, 3.

† J. Wierius, *De Præstigiis, &c.*

The divining rod naturally shares the miraculous fame of numbers; and the *Rhabdomantic* art, or divination with the divining rod, was held in honor, wherever variously marked pieces of wood served as arithmetical machines. Very complicated calculations were made with pieces of wood by the Khivans, who were much inclined to believe in the Rhabdomantic art.*

The Rhabdomantic art was practiced among the Alani and the Scythians,† the ancestors of almost all the present inhabitants of Tartary; and also by the Chaldeans, from whom the Hebrews appear to have borrowed it.‡ Such being the case, it is unreasonable to suppose that this method of divining with this rod, which can not be explained even by those who now employ it, may not be traced back in Asia to an antiquity as remote as the superstition to which it has given rise.§

* N. Mouraviev, *Voyage en Turcomanie et à Khiva.*

† Herodot., lib. iv., cap. lxvii.; Amm. Marcell., lib. xxxi., cap. ii. The ancient Germans also made use of it. Tacit., *German.*, cap. x.

‡ *Hosea*, chap. iv., verse 12. "My people ask counsel of their stocks, and their staff declareth unto them."

§ The divining rod was also employed as a curative agent; and passing a child through a cleft ash-tree is still, in Suffolk, believed to be a remedy for rickets, ruptures, and many other diseases. The stem of a young tree is split for the purpose, and the child thrice passed through the cleft, which is then bound up; and "the impression is that, as the tree heals of its wounds, so will the child's ailment be removed.* This ceremony was once performed in the garden of my excellent friend, Major Moor, the author of the "Hindu Pantheon," at Woodbridge, in Suffolk. On the bank of the lake of Killarney is a natural cleft tree, through which people are once or more passed. Croker, in his *Legends of the Lake*, does not overlook this superstition: "It is called the eye of the needle." "Sure your honor will thread the eye of the needle—every one that comes to *Innisfallen* threads the needle," said Plunket, the cicerone of Killarney. "Pshaw!" said I, "I shall never be able to squeeze through that hole—I am too fat—beside, what's the use of it?" "The use, sir? Why, it will insure your honor a long life, they say. And if your honor

* Moor's *Oriental Fragments*, p. 508.

It has been truly remarked, that ignorance almost universally places error at the side of that which appears miraculous. By local applications, medicine has often allayed, and even prevented, the return of pain in a limb. But the physicians belonging to the sacred caste led the multitude to believe that the efficacy of the remedy depended entirely on the hand that administered it, and which alone could imbue it with its healing virtue. In consequence of the belief in this doctrine, the charlatan was supposed by the credulous to impart to these beneficial substances, not only the power of curing existing diseases, but the influence of preserving them from those which were likely to occur in future. From this successful application of local remedies, sprung the belief of the supernatural properties assigned to amulets or talismans.* Here con-

was a lady in a certain way, there would be no fear of you after threading the needle."*—Ed.

* The term amulet is Arabic, and implies any thing suspended. Thus, a stone, a morsel of amber, a bezoar, a plant, an animal, a piece of written parchment or paper, hung upon any part of the body, in the belief that it is capable of preventing disease, or counteracting poisons, warding off witchcraft, or any evil which is likely to attack the wearer, is an amulet. The faith reposed on amulets was universal in the ancient world, and the belief in them has outlived most of the olden superstitions. In our time, the anodyne necklace, which consists of beads turned out of the root of the white bryony, and which is hung round the necks of infants, in order to assist their teething, and to ward off the convulsions sometimes incident to that process, is an amulet. In Turkey various kinds of amulets are still generally worn; and in Greece, at the present time, the priests sell to the sick amulets which are pieces of triangular paper, containing in writing the name of the disease under which the sick man is laboring, and which are attached to the door of the sick-chamber.

In ancient times amulets were of two kinds, namely, *natural* and *artificial*. Among the former, Pliny says that any plant gathered on the bank of a river before sunrise, provided the person who gathers it is unperceived, and tied on the left arm without the patient knowing what it is, cures ague, and is an amulet.† Beads of selenite were worn as necklaces by women, and even

* *Legends*, p. 70.

† Pliny, *Hist. Nat.*, xxiv., 19.

troversy again played a part: figures borrowed from it are traced on many of these amulets; the most celebrated, the *Abraxas*, which is said to derive its virtue from the chief of the good genii, simply expressed the number of the days of the year.

Faith in talismans survived the ancient forms of worship. Even under the dominion of Christianity, an unenlightened piety tended to foster it. It is related by M. Tiedmann,* that three Agnus Dei, with verses† expressing their magical virtues, were sent to the Emperor of Constantinople by Pope

tied to trees to make them fruitful.* In India, many stones and gems are used as amulets. The turquoise is supposed to avert the evil eye; but the most remarkable is the *salagrama* which is about the size of a billiard ball, of a black color and usually perforated as if by worms. It is supposed to be found only in the Gandaki, a river in Nepaul, which, according to the followers of *Vishnu*, flows from the foot of that deity; but according to the Saivas, from the head of *Siva*. The fortunate possessor of this stone preserves it in a clean cloth, from which it is frequently taken and bathed, and perfumed. The water with which the ablution is performed acquires a sin-expelling potency, and it is, therefore, drank and greatly prized. The *salagrama* possesses many other mysterious powers; and in death it is an essential ingredient in the *viaticum*. The departing Hindoo holds it in his hand, and through his confidence in its influence, hope brightens the future, and he dies in peace.

Many amulets are believed to possess the power of warding off the blow of the king of terrors; but Lucilius, in one of his epigrams, describes a sick man who, having seen a certain physician in a dream,

. . . . . "Awoke no more,
Although an amulet he wore."

The galvanic rings now worn as protections from rheumatism, and the camphor bags, as guardians of female virtue, are amulets. Thus we are told that in 1568 the Prince of Orange condemned a Spanish prisoner to be shot at Juliers. The soldiers tied him to a tree, and fired, but he was invulnerable. The soldiers, therefore stripped him, to see what armor he wore, but they found only an amulet bearing the figure of a lamb. This was taken from him, and death followed the first shot aimed at him.—Ed.

* Tiedmann, *De Quæstione, &c.*, p. 103.

† These verses have been quoted by Fromann, pp. 947, 948.

* *Dioscorides*, lib. v.

Urban V. After such an instance, can one blame the ignorant who put their faith in the talismans of the magician? Wherein lies the difference, except in the mode of consecration?

Why did the Scandinavians attach to verse the idea of a magical power?* Why did the Greeks and Romans believe in the power of songs and verses to cause the destruction of dangerous reptiles, and to draw the moon from the vault of heaven?† We reply that magical formularies were originally couched in verse, in a similar manner as the principles of policy, and of morality, and religious and historical narratives; and these verses were always chanted. The Theurgists, deriving their ceremonial rites from the Egyptian priests or from the disciples of Zoroaster, did not hold this opinion. They were ignorant whether some had or had not expressed themselves in verse; they were certain that others had not done so; and poetry was prohibited by the religion of Egypt, as being the language of fiction.‡ Modern sorcerers have not ascribed magical powers to verse; but they find virtue in absurd figures, strange characters, and words of uncouth pronunciation.

In the hands of men who either had never been in possession of, or who had no knowledge of hieroglyphics, or of sacred language and characters, the greater proportion of the magical formularies became useless; yet, nevertheless, though they had ceased to be comprehended, the remembrance of their powers was not forgotten. Even when meaning was no longer attached to the terms mysteriously recited, or those graven on stones, or written on parchment, perhaps a greater reverence

* C. V. de Bonstetten, [*La Scandinavie et les Alpes*, pp. 42–53.
† Virgil, *Eclog.* viii., v. 69–71.
‡ Dio. Chrysost., *Orat. de Ilio non capta.*

was conceded to them because their origin and the measure of their real virtue were not suspected.

It is thus that errors arise, and become extended. The Hindoos affirm that "each letter is governed by an angel, an emanation of the virtue of God's omnipotence; and these angels are represented by the letters which compose the oration, or form of incantation, by which miracles are to be wrought.* With what facility, aided by such a doctrine, has the impostor been able to defraud the credulous in the sale of amulets; some composed of the letters expressing a prayer, or a vow; some inscribed with strange or absurdly grouped characters; their efficacy indeed becoming greater in proportion to the complicated and extraordinary aspect of the writing."†

A missionary,‡ having written a vocabulary of the native language in Louisiana, frequently referred to it, in order to answer the questions of those who addressed him. The natives believed this paper to be a spirit, which communicated to the missionary all his knowledge. The Nadoëssis are, though able to count, ignorant of ciphers.

* *Les Mille et une Nuits*, tome i., pp. 128, 129 (14e *Nuit*).—*Hist. du Brame*, Pad. Manaba.

† The word *Abracadabra*, written as below, is still employed to cure agues, by what the ignorant call a charm, and in which they have the utmost confidence:—

```
A b r a c a d a b r a
  b r a c a d a b r a
    r a c a d a b r a
      a c a d a b r a
        c a d a b r a
          a d a b r a
            d a b r a
              a b r a
                b r a
                  r a
                    a
```

Indeed, such is the influence of the imagination over the body, that the sincere belief of the credulous in the efficacy of this charm is adequate to effect a cure.—Ed.

‡ P. Hennepin, *Description de la Louisiane*, pp. 219, 250.

Carver,* opening a book before them, told them exactly how many pages there were between the beginning and the page which he showed them; they immediately concluded that the book was a spirit, which dictated answers to the traveler. At Kano, in Africa, Clapperton met with a person who believed that the traveler had the power of transforming men into beasts, and the earth into gold, simply by the act of reading a book.† The Runic letters‡ were numbered with other magical agents, so soon as this species of writing was lost to the vulgar. An algebraic formula would be similarly regarded by the superstitious, if they beheld an undeniable solution to questions apparently widely different, furnished by its aid; and in which they could not discern the point, common to all, which the science had seized upon.§

The extravagance of credulity causes steps still more surprising than those already mentioned to take place. In the provinces situated to the east of the Baltic, which by force of arms and political stratagem have been united to the empire of Russia, it is firmly believed, that if a woman with child introduces a piece of wood into the stove, in a direction opposite to the growth of the branches, the infant will be presented in an unnatural direc-

* Carver, *Travels in South America.*

† *Travels in Africa, &c.*, vol. iii., p. 37.

‡ Runic letters constituted the ancient alphabet of the Teutonic and Scandinavian tribes. It consisted of sixteen letters, which are supposed to have been of Phœnician origin. They were cut on stones; and those specimens of them which remain have much similarity to the portions of wood, or sticks, which were anciently employed in casting events by the Germans; and in this similarity, most probably, originated the magical properties ascribed to the Runic letters.—Ed.

§ The notation of music would undoubtedly appear supernatural to a people having no idea of it, were a man to repeat exactly one of their songs which he had never heard before, but which he possessed the power of noting down.

tion at the moment of birth.* Sometimes the credulous man, ignorant of hieroglyphics, has believed that, by imitating, as far as he could do so, the postures represented in the hieroglyphics, he could work the apparent miracle which, at an unknown period, was obtained by the process described by them. Of this we find several examples in the collection of Gaffarel.†

We believe it is allowable to refer to error, or to reveries of this nature, the origin of universally held or popular opinions, sometimes so strange and so absurd that we can neither divine their meaning, nor assign to them a plausible pretext or motive. Causes, with respect to the nature of which men have been always profoundly ignorant, have exerted, and continue to exert, an influence over their existence.

CHAPTER IX.

Notwithstanding the Rivalry of religious Sects, the Spirit of a fixed Form of Civilization existed.—Mystery in the Schools of Philosophy was ultimately banished by the Influence of more perfect Civilization.—In the first Epoch there was an habitual Communication of the Greeks with the Successors of the Magi, who were dispersed through Asia after the Death of Smerdis: 1st. The Revelation of Magic; 2d. The Impoverishing of Egypt after the Conquest of the Romans caused Priests of inferior Grades, who trafficked in the Secrets of the Temples, to abound in Rome; 3d. The Polytheists, who were converted to Christianity, carried into its Bosom the Knowledge of the Magic which they possessed.—In the second Epoch, the Remains only of the Sacred Science existed: 1st. In the Schools of the Theurgian Philosophy; 2d. In the Possession of wandering Priests, and, above all, of Egyptian Priests. As Successors to the former may be assigned, with much probability, the Secret Societies of Europe; to the latter, the modern Jugglers.

The mystery which had enveloped the sacred science, like the type of civilization, of which it

* Debray, *Sur les préjugés et les idées superstitieuses des Livoniens, &c.*—*Nouvelles Annales des Voyages*, tome xviii., p. 127.

† Gaffarel, *Curiosités inouïes, &c.*, chap. vii., § 1 et 2.

was one of the principal foundations, has submitted to the power of time: the veil is torn from it; the statue of silence, seated for so many centuries before the door of the sanctuaries and of the philosophic schools, has been overthrown.

We may inquire, when was this revolution effected? Was it when rival religions were at war with each other; before the inflexible Zoroaster and his successors, and the worship of fire, and Sabaism,* and the adoration of Siva, Vishnu, and Bramah, had received a check? I reply, no. Persecuted as magicians, the Hindoo and the Chaldean priests carried their sacred arts, and their inviolable silence, into exile.

The invasion of the Hebrews had dispersed the pagan priests of Canaan—Moses having declared sentence of death against whoever should declare oracles, or work miracles, in the name of a strange god. But the entire conquest of Palestine was but slowly achieved. The Hebrews, unfaithful to the law, and living among indigenous tribes, often consulted the priests and the diviners of their neighbors. The diviners, in particular, were renowned, and even revered; and, when they died, bequeathed their secrets to adepts only, who often found in them a source of wealth and of profit, if not the means of obtaining power. Their last successors may be recognized in those whom Saul persecuted with so much zeal, that, when he fell himself into the error from which he had wished

* The word, correctly written, should be Tsabaism. It was a religious system prevalent to a great extent in Arabia, in which, although one supreme deity was acknowledged, yet adoration was paid to all the stars, or the lower divinities supposed to reside in them, and to aid in governing the world. Their religious books were written in Syriac. Their fasts and prayers were numerous; they believed in future punishments for the wicked, but, at the same time, that after four thousand years they should be pardoned.—Ed.

to preserve his people, he with difficulty found a woman who professed the art of invoking the shades of the dead.

In Judea, these pretended prophets were divided among themselves, and were at variance with each other: some espousing the rival claims of Jerusalem; others those of Samaria; but neither anathema nor persecution could unveil the sources from which their inspirations flowed in the time of need.

The fierce Cambyses, in killing Apis, insulted the supreme god of Egypt, typified by that sacred bull. He condemned the priests and the worshipers of Apis to the torture, and despoiled the temples. He died, leaving behind him an execrable name, without having, notwithstanding so much violence, struck one blow at the religious mysteries of the sanctuaries.*

The spirit of the fixed type hovered over the theaters of these diverse events, and permitted only one new light to shine in the eyes of the people, who themselves never desired any thing further. For several centuries, however, a revolution, of which neither the cause, the activity, nor even the existence had been suspected, was gradually taking

* This conqueror was well aware of the height of superstition which enslaved the people whom he sought to subdue. It is even said that, knowing the veneration in which the dog and the cat were held by the Egyptians, when he attacked Pelusium, he placed a number of these animals in the front of his army, and by this means easily became master of the place. In his attempt to send an army of fifty thousand men into Upper Egypt, in order to destroy the temple of Jupiter Ammon, his object was defeated by the overwhelming of the troops in a whirlwind of sand, a circumstance which was attributed to the vengeance of the god whose sanctuary was threatened. An oracle predicted that he should die at Ecbatana; and, by a remarkable coincidence, his death occurred at a small town of that name, from a wound which he received from his own sword, when mounting on horseback. It happened in the year 521, B.C. He left no issue; and his throne was usurped by the Magi, whom, during his lifetime, he had severely persecuted.—ED.

place among the inhabitants of the earth; and which five-and-thirty or forty centuries have not been able to overturn. In the colonies, which the Phœnician navigators had founded on distant shores, they had introduced, unknown to themselves, the germ of progressive civilization. Too wealthy and too much occupied by mercantile interests to desire to subjugate by force of arms, and too little instructed to found civilization upon religion and sacred science, they were contented to blend their own customs with those of the tribes among whom they settled for commercial purposes.

It may be said, that man, for the first time, then learned that the mode of life which he had received from his ancestors might be ameliorated by the result of his free will, and not by a course of blind obedience to assumed supernatural beings. Curiosity is the first effect of the desire for mental perfection; and when this is even moderately satisfied, it teaches us to appreciate the value of knowledge, and does not relax in the pursuit, from the conviction that it must be sought for and obtained from distant sources. A long voyage does not alarm the philosopher impatient to instruct himself; nevertheless, he is not always able to break the seal of mystery. The instructions obtained in India, Chaldea, and in Egypt, bound the ancient sages, as far as we can judge, to particular opinions independent of theory. Thales, indeed, was enabled to predict an eclipse, but only one;* and Pythagoras

* There is much reason for believing that Chaldea was the cradle of astronomy, the origin of which has been fixed at a period so remote as two thousand two hundred and thirty-two years before the birth of our Savior. The astronomical learning was obtained from Chaldea; and, in every problem of difficulty, the Egyptians were forced to have recourse to the assistance of the Chaldean astronomers. But what La Place has designated as the most ancient monument of astronomical knowledge, namely, the invention of the period of seven days of the week,

found, by force of genius alone, the demonstration of the theorem that had been revealed to him, of the equality of the square of the hypothenuse to the sum of the squares of the two other sides of the rectangular triangle. Philosophers, beside, looked upon themselves as the initiated ; the pride of exclusive possession exalted them like their institutors : and the disciples of Pythagoras received his revelations, not in proportion to their capacity, but according to the elevation in rank to which they had attained in a doctrine, which, like the initiations, had its prefixed duration, its language, and its proofs. It was only by gradual steps, and by the exterior influence of progressive civilization, that the same discretion which regulated the temples ceased to govern the schools of philosophy.

Thus, even in those countries where protecting civilization showered down its blessings abun-

is said to be due to the Egyptians.* It is, nevertheless, remarkable, that the names of the days among the Bramins, are the same as those in Egypt, and correspond to the same physical portions of time. Thales, who was a native of Miletus, in Ionia, acquired, according to the custom of his day, the greater part of his knowledge by traveling, and was taught geometry and astronomy by the priests of Memphis. He soon, however, outstripped his instructors in the race of knowledge ; and, by the mere force of his genius, invented several fundamental propositions which were afterward incorporated into the Elements of Euclid. There is little doubt that the true doctrine of the motion of the earth was promulgated in the schools of Thales and Pythagoras ; and it is equally certain that Thales introduced into Greece the prediction of solar eclipses, and the explanation of their real cause ;† although it has, with much probability, been supposed that the method of working the problem was borrowed from the Chaldeans, who were enabled to arrive at it by an extensive series of observations, conducted with great care and regularity, which they possessed. Thales also corrected the Greek calendar, and determined the length of the year to be three hundred and sixty-five days. He died in the ninety-sixth year of his age, about five hundred and forty-eight years before Christ : one proof, among a thousand, that the exercise of the mental energies is favorable to longevity.—Ed.

* *Syst. du Monde*, l. v., c. l. † Plutarch, *De Placit. Philosoph.*, l. ii., p. 24.

dantly, where the cultivation of the art of writing and the sciences opened the way for brilliant fame, the doctrines of the sanctuaries and the occult science, that had emigrated from Thrace or Egypt, remained impenetrable. The priests maintained around them the most profound obscurity, the density of which was proportioned to the power and the veneration which they could obtain.

Demosthenes is the first author who noticed the existence of sorcerers in Greece.* At that time occult science had ceased to be centered in the temples: and some shreds of it had fallen into the hands of profane and obscure men, who were complete strangers to the sacred mysteries, and who had dared to profess the art of working miracles. We must retrace more than thirty-five lusters, and racall to recollection one of the most remarkable events of ancient history, the massacre of the Magi, after the fall of Smerdis,† in order to assign the cause of this fact. This sacerdotal tribe, very nu-

* Demosthen. in *Aristogit.*, 1; M. Tiedmann, *De Quæstione, &c.*, p. 46.

† Smerdis was the name of the brother of Cambyses, who was privately put to death by the order of that monarch, and who was represented after his death by an impostor of the same name, who greatly resembled him in person. This Smerdis, the impostor, was one of the Magi, and the person referred to in the text. He had been deprived of his ears by Cyrus, on account of some atrocity which he had committed. On the death of Cambyses, he usurped the throne, under the cover of his resemblance to the real Smerdis, whose death was only known to him. The fraud, however, was suspected, and discovered by Phædyma, one of the wives of the late monarch, who, at her father's request, took an opportunity of examining the head of the usurper when he was asleep, and ascertained that he had no ears. A conspiracy was immediately formed, which accomplished not only his destruction, but terminated in the massacre of the Magi, and the elevation of Darius to the throne of Persia. The term Magi is of Greek derivation, and implies men devoted to study and meditation; but my friend, Major Moor, suspects it is derived from the Sanscrit Mahaji, and means great, or wise men.—Ed.

merous and very powerful, could not be entirely annihilated. It was dispersed, without doubt, to all parts; and when the political views of Darius made him anxious to reassemble it, we may believe that all the Magi were not equally desirous of becoming the supporters of the assassin. To these fugitives successors were often found among men born in a period of higher civilization, especially among the Greeks, scattered over the vast empire of Persia, as commanders and soldiers in the auxiliary troops of Darius, governors of his provinces, and active agents of commerce in his ports, who, in the center of Asiatic Greece, and under the yoke of the great king, maintained both the culture and the idiom of European Greece, with the spirit of perfectible civilization.* To these they transmitted their hatred and their secrets.

The subsequent events, and the war of Cyrus the younger against Artaxerxes, above all, the ascendency which the King of Persia had obtained over Greece, both during and after the Peloponnesian war, had increased the intimate communication between the Greeks and the interior of the empire. They admired the wonders performed by the Magi, and from the name of these priests they gave the title of *magic* to the art of working miracles; and this title soon became sufficiently celebrated for Euripides to impose it on the celestial inspiration with which Orpheus had been animated. The Greeks in Persia, both curious and rapacious,

* A powerful evidence supports our assertion—if the poem attributed to Phocylides was really written by that author, and in which he says, "Abstain from the books of the Magi" (verse 138). He was born at Miletium, in Asiatic Greece, 637 B.C. According to Suidas, Phocylides must have written his moral precepts at a mature age, and consequently when the fugitive Magi were twenty or thirty years in communication with the Greeks of Asia.

drew near to the proscribed Magi and their descendants, and profited, without doubt, by the frequent occasions that they had of instructing themselves;* so that, on returning to Greece, they were enabled to carry on a lucrative trade, by employing the secrets they had acquired for the purposes of vengeance and wickedness.†

The conquests of Alexander established the power of the Greeks over those parts of Asia, where every temple had its pecular mysteries; while the numerous priests of Phrygia and of Syria threw open their sanctuaries to the conquerors, and were eager to initiate them into their creeds.

The second Idyl of Theocritus presents a picture of a conjuration or enchantment, worked by an ordinary female; thus showing that the use of magic had, long before that period, been practiced by the Greeks. The Idyl concludes with the threat of poisoning, which it is the object of the magical incantation to effect.‡ The simple idea is thus succeeded by one of superstition; and the language peculiar to the temples, in the expression of the fact which alone had been employed by the Greeks before their intercourse with a people, governed

* The communications of the Magi with the philosophers of Greece soon became frequent. Plato, in one of his dialogues, (*in Axiocho*), introduces the Magus Gobry, as revealing religious secrets to Socrates.

† One learned man whom I have already mentioned, M. G. C. Horst, states, in his *Bibliothèque Magique*, and has proved, that Italy and Greece received from Asia, and from the followers of the *two principles* (that is to say, the worshipers of Ormusd and his opponent Arhiman), the magic doctrines which were gradually blended with the ancient mythology, founded in both countries upon the worship of divine nature. It will be seen that this opinion relates to the time when the doctrines of magic had penetrated into the temples, an epoch much anterior to the period when the magic arts ceased to be concentrated there.

‡ Theocrit., *Eidyll.* ii., v. 160.

by the depositaries of the occult science. An atrocious crime was, therefore, no longer to be regarded as the work of man, but as the result of the intervention of supernatural beings. In the same manner, Theocritus transforms Agamede, a woman celebrated for her knowledge of medicine, into a sorceress.

The religion of Egypt, which Cambyses had attacked in vain, and which had never been disturbed by Alexander,* was preserved and honored by the Ptolemys; and, as masters of Egypt, the Romans allowed it to reign in peace over their new subjects. But external wars, and internal feuds, had ruined the people, and impoverished the temples. The ancient religion of the country, like the country itself, languished under the influence of a foreign yoke. The priesthood was no longer

* The peaceable possession of their religion, and the sacred mysteries which Alexander conferred upon the Egyptians after his conquest of Egypt, arose, in a great measure, from the adulation paid by the priests to the conqueror. On visiting the temple of Jupiter Ammon, he bribed the priests to salute him as the son of their god; and, through their influence, his army was induced to pay him divine honors. It is also well known that, after he overcame Darius, he ordered himself to be worshiped as a god; and when Callisthenes, a philosopher of Olynthus, who accompanied him as a preceptor in his Oriental expedition, and to whom he had been recommended by Aristotle, refused to degrade himself by obeying this command, the unfortunate philosopher was accused of a conspiracy, mutilated, exposed to wild beasts, and dragged about in chains, until Lysimachus relieved him of his persecutions by giving him poison. We can readily conceive that an individual spoiled by a successful career of glory, such as fell to the lot of Alexander, and elated with such a degree of pride as led him to assume divine honors, would not only protect but warmly patronize a fraudulent priesthood, who might aid in securing the object of his ambition. The most curious fact in the history of this great and bad man is, the part which the priests most probably played in causing his death, which occurred exactly as the Magi had predicted, on his entering the city of Babylon, after his Indian expedition, loaded with the spoils of the East. His death happened in the month of April, 323 B.C., in the thirty-second year of his age, and was very likely the effect of poison.—Ed.

the first body in the state: it had lost too much of its dignity, its power, and its riches, to preserve its numerous hierarchy unsullied. On this account, oppressed by want, priests of inferior orders repaired in crowds to the capital of the world; and, to the superstition and credulity already almost predominant there, they added jugglery and oracles. The enlightened classes of the people had the same contempt for these sacred mendicants as for those who flocked from Syria and from Phrygia. Occupied with other interests of too much importance, and nourished with too independent a philosophy, the cotemporaries of Cicero* and of Cæsar held the Thaumaturgian subalterns in little or no estimation.

The multitude, doubtless, still followed them, when, for a few pieces of money, they displayed their juggling in the public places, and engaged the attention of the people by oracles, cures, and wonderful apparitions:† but the general improvement of intellect could not fail to increase the degradation of the sacred science. The prodigies that it had formerly offered to the public veneration, now encountered many skeptics; and when a miracle is either denied or discussed, the little reality that it possesses enables the fraud to be easily unveiled. The priests, whose tact had been successful in upholding their deceptions under a fixed form of civilization, soon experienced how much their influence was lessened under a civilization which was progressive. They strove with

* To Cicero has been attributed the remark, "that two auruspices, or augurs, can not pass each other in the street without thrusting their tongues into their cheeks;" but

Faith—fanatic faith—once wedded fast
To some dear falsehood, hugs it to the last.—Ed.

† Origen, *Contr. Celsum*, lib. i.; Plutarch, *Cur nunc Pythia non edit oracula carmine.*

difficulty against the latter, chiefly because its influence was founded upon an extension of knowledge. The oracles were silenced; prodigies became more rare, and the obscurity of the sanctuaries and the mysticism of superstition alike diminished, when the triumph of Christianity imparted a new impulse to the mind, and propagated a higher creed. Behold, on one side, the temples destroyed; the priests dispersed; some doomed to ignominy and to indigence, and others reduced at last to traffic for their livelihood with the sacred science: and on the other side, persuasion, enthusiasm, interest, ambition, and persecution at last, causing numberless desertions from the old faith, while they augmented the ranks of the proselytes under the banners of the new religion; among these proselytes there were many who were ready and desirous of carrying with them those secrets of magic which belonged to the different creeds that they had abandoned. The miracle which dispersed the workmen, sent by Julian to raze the Temple of Jerusalem, proved that the Christians also were tainted with the knowledge of the processes which the ancient Thaumaturgists had used with such brilliant success.* Then, the old religion received a

* The great efforts which the Emperor Julian made at this time to restore Paganism in all its brilliancy and power, proved unavailing; not on account of any deficiency of talent, or feebleness of energy in that extraordinary man, but because the faith which he was anxious to press was destitute of theological principles and moral precepts. It was the object of that emperor to remedy these defects; and laws were enacted to reform morals, and to promote the practice of benevolence and charity, which he was wise enough to admire in the Christians. But this was impossible; the union of fraud and truth could never be effected; and while the priests of restored Paganism were selected from among the philosophers and Magi, who were deeply skilled in magic and divination, and who dealt openly in impostures, it was impossible to oppose the progress of the new faith, based upon truth and purity of morals. It is, nevertheless, melancholy to reflect upon the apostasy of many Christians, who, from mere

mortal blow: its adversaries could combat it with its own weapons, or unveil to the day the weakness of its impostures.

As long as Polytheism existed, detested but not yet proscribed by supreme authority—as long as its temples stood, or their recent ruins recalled a worship to which so many recollections were attached, the most earnest endeavor of its adversaries was to demonstrate the falsehood of its miracles, as well as the absurdity of its dogmas. But gradually the ivy and moss covered the rubbish, in the midst of which persevering zeal no longer reassembled its worshipers. Habit, the course of things, and necessity, drove whole populations into

prudential motives, embraced the religion of their sovereign. The crafty monarch even went so far as to dream of rebuilding the Temple of Jerusalem, which was not only "destroyed by the arms of Titus and Hadrian, but a ploughshare had been drawn over the ground, as a sign of perpetual interdiction."* He hoped to establish in it all the ceremonials of an imposing faith, which should eclipse those of the Church of the Resurrection on the adjacent hill of Calvary. The Jews assembled to aid this object, intent alone on exasperating the Christians, without reflecting on the ultimate aim of the emperor. It was on this occasion when the workmen of Julian and the infatuated Jews, were equally engaged in clearing away the ruins of the former edifice, and founding the new temple, that an earthquake, a whirlwind, and a fiery eruption, destroyed the enthusiastic laborers, scattered the foundations of the projected edifice, and overthrew forever the triumphs and hopes of Polytheism. Our author has raised some doubts respecting the supernatural character of this event; but it was not at the time disputed by the infidels;† and notwithstanding the skepticism of Gibbon, and the doubts of the pious Dr. Lardner,‡ there is not the smallest evidence to prove that it was the result of artifice or of occult science. "The horrible balls of fire," says Ammianus Marcellinus, "bursting forth near the foundations, with frequent reiterations, rendered the place from time to time inaccessible to the scorched and blasted workmen . . . " and "the undertaking was abandoned."§—Ed.

* Gibbon's *Decline and Fall of the Roman Empire*, 2d edit., vol. iv., p. 100.

† Gregory Nazianzen, *Orat.* iv., p. 110.

‡ Ammianus Marcellinus, xxiii., xxiv.

§ *Jewish and Heathen Testimonies*, vol. iv., pp. 47—71.

the new faith: they ceased to combat that which they had ceased to disbelieve; they ceased to arm themselves against that reason which one day might extend itself beyond the end prescribed to its efforts. The remains of the sacred science then rested in the hands of two classes of men, very different from one another.

To priests of a superior order, to the enlightened disciples of the sages of Babylon, of Etruria, of Persia, of Egypt, and of Hindostan, were united the successors of the Theurgian philosophers, who, since the second century, had attempted to raise up Polytheism by transforming its legends into moral allegories, and its impostures into divine acts, effected at the commands of virtuous men, through the celestial powers. All of them together professing the ancient Polytheism less than the worship of one divinity, which they adored under a thousand different names in different religions, opened the schools of philosophy to the Christians; who, being the friends of knowledge, believed themselves permitted to search for it. A Platonic theosophy, with austere and exalted morals, formed the foundation of the doctrines. But they revered also the memory of men who had been, in consequence of their piety, in communication, as they believed, with supernatural beings, and had obtained the gift of miraculous works. The just dread of hearing their miracles discussed, denied, or vilified, by their too powerful adversaries, reanimated the ancient spirit of mystery; and they made it a religious duty, more than ever, to be silent on all that they still possessed of their knowledge. Synesius* bitterly reproaches one of his

* Synesius was born at Cyrene, in Africa, in the year three hundred and seventy-eight. He attached himself to the school of the New Platonists, but was converted to Christianity when

friends for having revealed to uninitiated auditors a part of the secret doctrine of the philosophers.* The entire work of Lydus upon prodigies, and the passage that we have quoted from Damascius,† prove how far the two latter believed themselves still strictly bound by their promises of silence.‡ The initiated of Memphis,§ the disciples of the

little more than twenty years of age, by Theophilus, Bishop of Alexandria. He was a most remarkable man, both for learning and piety; and although, after his conversion, he still retained a fondness for the New Platonism, yet, Theophilus urged him to permit him to consecrate him for a bishopric. The entreaties of the bishop were long resisted, on account of the affection he bore for his wife; but he at length yielded, was separated from her, and became Bishop of Ptolemais in 410. He was the author of many curious and learned disquisitions.—Ed.

* Synes, p. 143.

† Damascius, the stoic. He was a native of Damascus, and wrote several works, some of which are now lost. Those writings by which he is best known are four books on extraordinary events which occurred in the age of Justinian.—Ed.

‡ The trace of this custom of mystery is found at a much later period. It was only in the twelfth century that Tzetzes and Zonaras revealed the secret of the mirror of Archimedes, although this mirror had been employed by Proclus, at the beginning of the sixth century, to burn the fleet of Vitellius, who besieged Constantinople.

§ Memphis, situated on the banks of the Nile, near the Pyramids, was the capital of Egypt before Alexandria was built, and contained the Temple of Apis, the ox-god, the type of Osiris, whose soul the Egyptians believed passed into the body of an ox. The great festival of this god was performed with the most magnificent ceremonies at Memphis, at the commencement of the annual inundation of the Nile, and lasted seven days. The ox, selected to represent the god, was distinguished by particular marks, which were, most probably, the ingenious productions of the priests: the whole animal was black, except a white crescent, or a mark resembling the figure of a man, on the right side; and on the back, the figure of an eagle; on the forehead was a white, square spot; under the tongue a knot resembling a beetle; and the hairs of the tail were double. This ox was led in solemn procession, and having made the round of the city in order that those who smelled his breath might gain a knowledge of futurity, and after a variety of other absurd ceremonies, he was led to the river, and if he had attained to twenty-five years of age, he was drowned, and a new Apis elected. On this occasion, although the god was purposely drowned, the priests shaved their heads as an indication of mourning; cries and lam-

Etruscan priests, could not have held a more reserved language.

In noticing the philosophic dogmas, we shall be able to follow into Greece, and then into Italy,

entations resounded through the city; and these continued until a new Apis, with all the characteristic marks, was found. This new representative of Osiris had to perform a probation of forty days, before being initiated in all his dignities; during which time women only administered to him.

Bull and kine worship passed into Egypt from Hindostan, and it is still retained in the East; for Siva rides upon a white bull, called Handi; and Brahmany, or *sacred bulls*, are seen wandering unmolested in all the cities of Hindostan. But the most curious circumstance relating to bovine worship, is the fact that it was practiced in England in the fifteenth century: another proof, among many, of the difficulty of shaking off old habits, and a verification of the remark, that the early Christians had ingrafted some of the abominations of Paganism on their ritual. Major Moor, in his *Oriental Fragments*, p. 516, has given the following translation of a register of the monastery of St. Edmundsbury, contained in a volume entitled *Carolla varia*, by the Rev. William Hawkins, of Hadleigh, Suffolk, printed at Cambridge, 1634.

"This indenture certifies, that Master John Swarsham, sacrist, with the consent of the prior and convent, demise and let to . . . . the manor called *Habyrden* in *Bury*, and the said . . . ., his executors, &c., shall find, or cause to be found, *one White Bull*, every year of his term, so often as it shall happen that any gentlewoman (*mulierem generosum*), or any other woman, from devotion, or vows by them made, shall visit the tomb of the glorious martyr St. Edmund, to make the oblation of the said white bull, etc. Dated, the 4th of June, in the second year of Henry VII. (A.D. 1487.)" Two other indentures, nearly similar, are of the eleventh and twenty-fifth of Henry VIII. Now, the worthy Mr. Hawkins informs us, that when a married woman wished to make this oblation, "the white bull, who was never yoked to the plough, nor baited, was led in procession through the principal streets of the town, to the principal gate of the monastery, attended by all the monks singing, and a shouting crowd: the woman walking by him, and stroking his milk-white sides, and pendent dewlaps. The bull being then dismissed, the woman entered the church, and paid her vows at the altar of St. Edmund, kissing the stone, and entreating with tears the blessing of a child." It is not easy to say how many other equally ridiculous pagan superstitions deformed the purity of Christianity before this period. I will mention one only at present. When Clovis, the first Christian King of France was baptized, the vial containing the sacred unction was stated to have been dropped from heaven into the hands of St. Remigius, then Bishop of Rheims, about the end of the fifth century; where it has ever since been preserved for the

after the capture of Constantinople, the traces of the existing influence of the schools. This will be, however, less easy in all that concerns occult science; the founders of the school certainly possessed it, but its transmission is only probable. How many accidents might have buried it in the mystery from which it must have escaped, but for the great precautions that were observed to secure it! Some facts remain, however, to shed a little light upon this interesting problem.

The doctrines of the Theurgists, which transformed into supernatural beings and genii both those substances which serve and are made use of in experimental science, as well as the men who employed them, was entirely revived in the cabalistic doctrines of modern times. To produce miraculous works, science also caused the genii to act, and to submit to the power of the philosopher whom she enlightened with her rays. Genii of the earth, of the air, of the water, and of fire were dispersed in the four elements which physics, at that period, considered the bases of all bodies; and have we not discovered in the gnomes the laborers who worked mines?* The brilliant and romantic details with which a lively imagination has embellished the principles of the cabalists, do not prevent the identity of the two doctrines from being easily recognized.

purpose of anointing all succeeding kings. To confirm its divine descent, as soon as the coronation is over, the oil in the vial begins to waste and vanish, but is again renewed of itself, for the service of every succeeding coronation. By such falsehoods has the Church of Rome defiled a faith which requires nothing but the simple light of truth to display and uphold its divine origin.* —Ed.

* The four elements were personified by *Sylphs*, *Nymphs*, *Gnomes*, and *Salamanders*. The Gnomes were the evil demons of the earth.—Ed.

* Nic., *De Brain de St. Remigio.*

It is known what sublime power is attached to OM (OUM), which designates the Hindoo Trinity, composed of *Siva*, *Vishnu*, and *Bramah*, in pronouncing which the pious Magi are raised to the intellectual knowledge of the three united gods. This divine name, and its mysterious energy, were again brought forth in two books of magic, published in Germany at the beginning of the sixteenth century.* We may regard these as the last link of the chains still remaining, in spite of the remoteness of countries and of ages, and in spite of the difference of idioms and of religions—a remaining link of that chain which binds to the transcendental doctrines of Hindostan the wrecks which modern adepts have preserved of them.

Of those inventions which anciently produced so many miracles, some are to be found in the writings of men whom, as being versed in the occult science, the Middle Ages either admired or persecuted.† It is certain that in that age of ignorance learned men have often conveyed the charge of their knowledge to secret societies, which have existed almost in our day, under the name of Rosicrucians,‡ or under other names equally enigmatical.

* They are quoted in the "*Bibliothèque Magique*," of M. Hurst.

† Albertus Magnus, l'Abbé Trithème, the Franciscan Barthélemi, Robert Fludd, Roger Bacon, &c.

‡ Rosicrucians, or brothers of the Rosy Cross, were a sect of hermitical philosophers, who first appeared in Germany, at the beginning of the fourteenth century.

Their chief was a German gentleman, called Christian Rosencruz, educated in a monastery, where he learned the languages.

About the close of the fourteenth century, he went to the Holy Land, where, falling sick, he consulted the Arabs at Damascus, and other Eastern philosophers; and by them he was supposed to be initiated into the mysteries he professed. On his return to Germany he formed a society, to which he communicated his secrets, and died in 1484.

The whole of this account is generally regarded as fabulous. The members of the society bound themselves to secrecy, and

One of the brighest geniuses who shed honor upon Europe and the human race, Leibnitz, penetrated into one of these societies at Nuremberg, and, from the avowal of his panegyrist,* obtained there instruction which, perhaps, he might have sought for in vain elsewhere. Were these mysterious reunions the remains of the ancient initiations? Every thing conduces to the belief that they were: not only the ordeal and the examinations to which it was necessary to submit before obtaining an entrance to them; but, above all, the nature of the secrets they possessed, and the means that they appear to have employed to preserve them. Sometimes, indeed, there are found in the writings of the authors of the twelfth and thirteenth centuries indications of the knowledge of Thaumaturgy, and its application; but more frequently merely the remembrance of the wonders that they had form-

certain rules. They professed to know all sciences, but especially medicine; and they pretended to have their traditionary knowledge from Egyptians, Chaldeans, and others. They have been called Immortals, Illuminati, Invisible Brothers, and, from signing themselves F. R. C., also *Fratus Roris Cocti;* it being pretended that the philosopher's stone is concocted dew. They have been confounded with the Freemasons.

The Rosicrucians have had some respectability, because Luther's arms were a cross and a rose; and as it was assumed by chemical druggists, it was asserted to be derived from chemical signs. *Dew, ros,* was esteemed the best solvent of gold; and the cross, or *crux,* is the symbol for light in chemistry. Now light, according to this sect, is rarefied gold; and thus the name arose. A Rosicrucian is one, therefore, who by dew seeks light (gold).

At the head of these fanatics was Robert Fludd, an English physician, Jacob Behmen, and Michael Mayer. They all maintained that the dissolution of bodies by fire is the only way that man can arrive at wisdom and obtain the first principles of things. They taught that there was a certain harmony in creation; that even the Deity rules the kingdom of grace by the same chemical laws as those by which he rules the kingdom of nature; and they therefore expressed religious truths by chemical signs, and various other strange, incomprehensible doctrines.—ED.

* Fontenelle, *Eloge de Leibnitz.—Eloges des Académiciens,* tome i., pp. 464, 465.

erly worked, and scarcely throwing a gleam of light on the oblivion into which the means by which they have fallen were performed.

It is thus, at least, that we are tempted to interpret these authors erroneously when they describe such marvelous works and pronounce them possible to their art: usurping the glory of having revived many of the old inventions—for example, having rediscovered, before Buffon, the burning mirror of Archimedes, of having invented the telegraph, &c., &c.; but, with their pretensions, they have not indicated the method of effecting these wonders.

Their silence, however, is not a decisive proof of their ignorance: loving mystery, and proud of exclusive possession, they were learned but for themselves and a small number of adepts; they were silent, also, or expressed themselves only in allegories.* But this silence, this love of mystery, are but traits of resemblance which recall the Theurgic schools, in whose bosom the expiring secrets of Polytheism were deposited.

That we may assign the same origin to the knowledge possessed by the members of the secret societies, is rendered probable from the horror, the fear, and the spirit of persecution which their science inspired; feelings much stronger than if the science had been more extended. They were designated the descendants of the Polytheist priests —the ministers of those dethroned gods who were but the genii of the wicked and of the ignorant.†

* In the sixteenth century, Leopold of Austria, son of Duke Albert II., published a picture of the *Paranatellons des Décans* (printed at Venice, in 1520. See Dupuis. *Origine de tous les Cultes*, vol. xii., pp. 127, 128). It is an extract of the Persian sphere; but Leopold, instead of transcribing positive indications from them, has drawn only the emblematical figures.

† The accusations against these secret societies ought not to surprise us; and although much falsehood may have been propa-

Christianity having maintained powerful preëminence for more than six centuries, and having carried her conquests farther than the Romans had extended their empire, becoming the conquerors even of the Romans themselves, seemed to have nothing to fear except from the unceasing doctrinal

gated respecting the views and the proceedings of the initiated, yet it should be recollected that suspicion can not fail to be awakened where secrecy is cherished; and charges will be made that something exists which can not be exposed to the light of day, nor to general observation. The chief secret societies in Europe have been the Templars, the Secret Tribunals of Westphalia, the Freemasons, and the Illuminati of Germany. It would be impossible, in a note, to do justice even to a slight sketch of these mysterious societies; and, therefore, I will only adjoin the initiation of an assessor, or Schöppe, into the *Fehmgerichte* of Westphalia, an institution of Charlemagne. The person to be received appeared bareheaded before the assembled tribunal, and kneeling down, with the thumb and forefinger of his right hand on a naked sword and a halter, he pronounced the following oath, after the court, or the president of the assembly:—

> "I promise, on the holy marriage, that I will, from henceforth, aid, help, and conceal the holy Fehms, from wife and child, from father and mother, from sister and brother, from fire and wind, from all that the sun shines on, and the rain covers, from all that is between sky and ground, especially from the man who knows the law; and I will bring before this free tribunal, under which I sit, all that belongs to the secret jurisdiction of the emperor, whether I know it to be true myself, or have heard it from trustworthy people, whatever requires correction or punishment, whatever is Fehm-free (*i.e.*, a crime committed in the country), that it may be judged, or, with the consent of the accuser, be put off in grace; and will not cease to do so, for love or for fear, for gold or for silver, or for precious stones; and will strengthen this tribunal and jurisdiction, with all my five senses and power; and that I do not take on me this office for any other cause than for the sake of right and justice; moreover, that I will ever further and honor this free tribunal more than any other free tribunals; and what I thus promise will I steadfastly and firmly keep, So help me God and his holy Gospel."*

However harshly stigmatized secret societies may have been, I have no hesitation in saying that the imposition of such an oath as the above could scarcely fail of throwing a suspicion of illegal practices upon them, and consequently that they were properly suppressed.—Ed.

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* *Secret Societies of the Middle Ages*, Lond. 1837, p. 349.

dissensions springing up among her children. At length, upon an almost unknown part of the globe, a man appeared, a stranger to the resources of the occult sciences, in the person of Mohammed.* He had the courage to reject them, and to establish a belief in revelation, and to found a religion by declaring that the God whom he preached had refused him the gift of working miracles. In Syria, Egypt, and Persia, which were rapidly conquered, his fierce followers overturned civilization; and in Persia especially their fanaticism pursued the Magi, the depositaries of the sacred science, with implacable rage.

Four hundred years later again, in the name of Islamism, and animated with that enthusiasm for destruction that seldom fails to excite savage hordes, the Turks overran Asia, from the foot of the Cau-

* Mohammed, or Mahomet, was the son of a noble Arab, Abd-Allah, of the tribe of Koreish, and Aminch, the daughter of a chief of high rank. He was, however, left an orphan with a very small patrimony of five camels and a female Ethiopian slave, and was brought up by his uncle, Aboo Talib. At the age of twenty-five, he became the confidential servant of Khadijah, a wealthy widow, whom he afterward married, although she was fifteen years his senior. At this time the Arabs were idolaters; and even Christianity was corrupted by many superstitions. The ardent spirit and ambitious mind of Mohammed led him to regard himself as a mortal selected by Heaven to correct these evils; but it was not until he attained his fortieth year, that he revealed his pretended divine mission to his wife and friends. For the three hundred gods of the Caaba, worshiped by the Arabs, he substituted the adoration of one God, and taught the doctrine of future rewards and punishments; but his ideas of the rewards were sensual, and of the punishment, those only that are offensive to the body. It is probable that, deluded into the belief of his mission, his views, at first, were honest, and his object was to check the evil propensities of his countrymen. But elated by the success in his attainment of temporal power, he diffused his tenets by the sword, and to elevate their origin, declared that each *sura* or revelation of the Koran was brought to him from heaven by the angel Gabriel. That he was an impostor there is no doubt: but it might become a question, whether his appearance had not greatly contributed to the fall of Polytheism.—Ed.

casus to the shores of the Red Sea; from the Persian Gulf to the Euxine; and over those countries barbarism seemed always to have reigned with them. Similar causes produce similar effects; and in these two epochs the secrets of the occult science were spread abroad in consequence of the dispersion of its possessors.

From the eighth century, when, tranquil in the bosom of their conquests, the Arabs gave themselves up with ardor to the study of magic, they sought to obtain from it the art of making gold and of discovering hidden treasures—a wish natural in a people enervated by luxury, and for whom despotism rendered all property precarious, but that which could be carried with them.

In the eleventh century, when in their turn the civilized Moslems dreaded the fanaticism of their new brethren, the intercourse between Europeans and the Arabs and Moors became very active; and it may be observed, that this commercial communication of the latter infested the sciences that they had carried to the West with magical superstitions.* Students from divers countries of Europe hastened to frequent the schools of the professors of the occult science which were opened at Toledo,† Seville, and Salamanca.‡ The school of Toledo was the most celebrated, and continued to be so from the twelfth until the end of the fifteenth century.§

The secret societies of Europe took an active

* Tiedmann, *De Quæstione, &c.*, p. 97.

† "Complures ex diversis regionibus scholares apud Toletum student in arte necromanticâ," are the expressions of Cæsar Heisterbach, a writer at the end of the twelfth or the commencement of the thirteenth century. *Illustr. Mirac. et Hist. Mir.*, lib. v., cap. iv., p. 207 (edit. of 1605).

‡ Fromann, *Tract. de Fascin*, pp. 173, 174.

§ See the *Commentaire de Leduchat sur Rabelais*, lib. iii., chap. xxiii., note 9.

part in these communications; and it is in a great measure from the adepts, of which these societies were composed, that we have acquired the knowledge of most of the physical and the chemical inventions of the Arabs.

It was in the lowest class of society that the secrets of Polytheism were at this period partially deposited. The degradation of the fallen religion caused the most ignorant men to become successors to the Thaumaturgists, who had so long governed both kings and people.

The vulgar can be undeceived by exposing the tricks of jugglers and other impostors who take advantage of their credulity; but, if their reason has not been aided by sound instruction, their superstitious prejudices never die; they only abandon one object to uphold another. The subaltern ministers of Polytheism were men whose science was almost limited to words, and their knowledge to the art of persuading others that they possessed secrets which were great and extraordinary. Forgetting their despised gods, they spoke of demons, genii, and fates, who, at their command, directed either terrible or benevolent actions.

Toward the middle of the sixth century, the Franks and the Visigoths issued severe laws against magic, that is to say, against the lowest class of magicians. The great Theurgic secrets were guarded with sufficient care to prevent them from spreading in an alarming degree among barbarians. Such laws prove how numerous this class was, and how great its power had become over the minds of the people.

In fact, from the commencement of the fifth century St. Augustin speaks of the *Sabbat** and of the

* The Sabbat was a fabulous assembly of sorcerers and witches, presided over by the devil, which is supposed to have originated

assemblies of sorcerers. Before this period only isolated magicians were known, such for instance as those whose juggleries have been recorded by Apuleius and Lucian. This is remarkable, as the idea of a *Sabbat*—of reunions—implies that of an organized society which recognizes within it chiefs and different orders; in short, the idea of an initiation. But although it bears an ignoble appearance, yet it is, in fact, an initiation. The subaltern magicians, not contented with trafficking in miracles, next communicated the gift of working them; they imitated the trials, vows, revelations, and the pageantry of the ancient initiations.

It has been thought possible to trace the origin of the assemblies of the Sabbat, or rather the traditions which relate to them, to the nocturnal meetings of the Druids; their religious dances by torchlight; the processions of Druidesses clothed in white robes; and the solemnities which were celebrated only in remote places, or in deserts, from the period that Christianity had induced sovereigns to put down the ancient religion of their countries.* This is not at all improbable, and it can easily be believed, that in the same manner as in the formation of the modern secret societies, the remains of diverse institutions, borrowed from different ages and from different countries, have been brought together, and so intermingled that it would be difficult to perceive what had originally belonged to each of them.

in the mystery that shadowed the religious meetings of the Waldenses, the earliest seceders from the Romish creed; and which brought upon them the charge of indulging in unhallowed rites, similar to those of heathenism.—Ed.

* M. Brodel thinks that the immense grottoes that are found in the Alps were formerly inhabited by the Faidhs, or adepts in the occult science; and he is also of opinion that, from this circumstance, the belief has arisen that these grottoes have been, and still are, the dwellings of fairies.

Whatever may be the general opinion, are we right in regarding as successors to the sorcerers of the fifth and sixth centuries, those sorcerers whose meetings have been impeached by all the tribunals of Europe, even until the eighteenth century?

We have already attempted to point out an analogous relation between the secret societies, formed by learned men of the Middle Ages, and the schools of the philosophic Theurgists. In the former, the changes produced by time have affected the forms and the secrets of the initiation; the knowledge which they wished to preserve existed as long as they could understand the formularies of it: in the latter, on the contrary, the design of the initiation and its history have alike fallen into oblivion. If we endeavor to trace it back to its origin, we have only for our guidance some imperfect remains of its practices and its fictions; and that which deceit and cupidity, eager to find dupes, have been able to preserve.

Several considerations demonstrate that such an analogy is of little value. M. Tiedmann supposes that several barbarous words, used in the operations of witchcraft, are only Latin and Greek words, badly read and pronounced by the uneducated,* which originally were part of the formularies of operations or of invocations. Nothing is more probable: and thus the three unintelligible Greek words, pronounced by the high priest at the Eleusian mysteries, *Kongx*, *Om*, *Panx*, have been recognized by Captain Wilford, in the Sanscrit words, *cansha*, *om*, *panscha*, which are repeated by the Bramins every day at the conclusion of their religious ceremonies.†

* Tiedmann, *De Quæstione, &c.*, pp. 102, 103.
† *The Monthly Repertory*, vol. xxiii., p. 8.

Do we not also remark, in the invocations of modern sorcerers, a confusion of astrological ideas, for the invention of which they assuredly can not account, because they do not understand them, and which must have been received from more learned predecessors?

To transport themselves to the Sabbat, or rather to dream that they were transported there, the sorcerers rubbed their bodies with a sort of pomade; the secret of composing which, a secret which so often was fatal to them, is the last, perhaps the only one, which they have preserved. A sudden, deep, and continued sleep, sad and mournful visions, sometimes mixed with voluptuous movements, were generally produced by the magical unction, the effect of which was to combine the two most powerful feelings of the human soul—pleasure and terror. The choice of the efficacious substances of which the pomade was composed, the discovery of their virtues, and the manner of employing them, can not be attributed to the modern sorcerers, who are always found in the lowest and most ignorant classes; this knowledge has doubtless descended from a much higher source. Ancient magic used mysterious unctions; Lucian and Apuleius have described those with which Pamphida and the wife of Hipparcus practiced. These two writers, however, have only copied from the Milesian Fables, as much celebrated for their antiquity as for their amusing character.

The magical unction, as we have thus described it, has no effect in modern times, except in producing the dreams that followed its use. But, in the primitive initiations, when composed of ingredients less soporific, it probably served to prepare adepts for the mysteries that they were about to celebrate, by bringing upon them that moral intoxication, the

frenzy of belief, so necessary for creating and maintaining superstition and fanaticism.

It may be asked, are we able to trace any vestiges of the primitive initiations?

Amid the avowals drawn by torture from pretended sorcerers, as to what had passed at the *Sabbat*—amid details varied by all the incoherence of profound delirium—we may perceive a certain number of uniform ideas. M. Tiedmann* ascribes this to the continuance of the tortures of these unfortunate beings until they had confessed every thing of which they were accused; and because the accusations were always identical and conformable to the ideas received among the judges. But it is not likely that the magistrates invented these absurd confessions: how then, we may ask, were they originally imprinted in the minds of these poor wretches, if they were not recitals founded either on real actions, or on recollections preserved by long tradition? The common foundation, therefore, of all the confessions which were composed of these ideas was, probably, allowing for the alterations which time and ignorance could not fail to give to them, some ceremonies formerly practiced in the subaltern initiations.

It is natural to believe that these initiations were attached to the last remains of the destroyed worship, and divers indications render this probable. Thus, if a hundred and fifty years have passed, since magical virtues, as in the time of our ancient Druids, were attributed to the misletoe of the oak;†

* Tiedmann, *De Quæstione, &c.*, pp. 137, 138.

† Fromann, *Tract. de Fasc.*, p. 697. The misletoe, *viscum album*, grows upon many trees; but it was that only which is found upon the oak that the Druids employed; and being a parasitic plant, the seeds of which are not sown by the hand of man, it was well adapted for the purposes of superstition. Its virtues, however, depended altogether upon the manner in which it was ob-

if, in the country, attentive observers daily discover legends, superstitions, and observances which have emanated from the ancient religions, how much more is it likely that in an epoch far less remote from that of their splendor, these religions still preserved an influence over the habits and the faith of the multitude! The priestesses and Druidesses of Polytheism retired to a distance from cities, and long preserved the confidence and the respect of the people. Gregory of Tours speaks of the existence of Pythonesses among the Gauls; and, in 798, we see by the capitulars of Charlemagne that there were divineresses prescribed under the name of *Striæ*. At a much later period, a crowd of men and women assembled by night to celebrate the worship of *Diana*, or the Lady *Abunde*, who was also called Hèra, from the Greek name of Juno, with feasts, races, and dances.* It appears that the priest who presided at the assembly was clothed in a goat's skin, carrying a horned and bearded mask, and thus represented the god Pan, the divinity of Mendes,† whom the Greeks had borrowed

tained: and for this purpose, a religious procession of Druids and Druidesses repaired to the forest, and having found the misletoe, the chief priest ascended the oak in which it was growing; and a hymn having been sung, the plant was cut down with a silver sickle, and received in a clean, white sheet, spread out below, and held by the other priests; for the misletoe lost all its virtue if it touched the ground. The custom, still extant, of decorating houses, at Christmas, with evergreens, of which the misletoe is one, is a remnant of Druidism; and was originally intended as an inducement for the sylvan spirits to "repair to them, and remain unnipped with frost and cold winds, until a milder season had renewed the foliage of their darling abodes."*—Ed.

* See Dulaure, *Histoire de Paris*, 1st edition, vol. v., p. 259; and also Carpentier, *Glossar. verbis Diana et Holda.*

† Mendes, which, in the Egyptian dialect, was the name for a goat, was a city near Lycopolis, in Egypt, situated on one of the mouths of the Nile, where Pan, under the form of a goat, was worshiped; and a sacred goat was kept with the most cere-

* Brand on *Bourne's Antiquities*, p. 193.

from Egypt; as in some secret ceremonies of Polytheism, there were other priests who probably bore the disguise of animals. The names of *Diana* or *Hèra*, and the recollection of *Pan*, carries us back to the religion which Christianity had overturned; but, do we not also find details, which were repeated in the confessions of the sorcerers: for example, the dances, the races, and the feasts; the goat that they adored; the different animals which a heated imagination transformed into demons, and which, it was supposed, served for mounting the principal personages, who attended at the ceremony. Maximus of Turin, in the fifth century, describes similar meetings as the remains of Paganism. Seven hundred years later, John of Salisbury speaks of them. He mentions them in the fourteenth century; but it is doubtful whether they really took place then: the romance of the Rose says that those who believed in them, and united themselves with the third part of the population, were deceived by an illusion. From that time, the meetings and ceremonies of the Sabbat fell into disuse, and no longer existed, save in the reveries of the sorcerers.

After having endeavored to restore the historic chain which united those wretches, whom a stupid ignorance condemned to death as sorcerers, with the last depositaries of the ancient occult knowledge, it is necessary that we should, among the latter, distinguish the subaltern Magi from wizards. Those men who came from different temples, and who were possessed of different secrets, without doubt assisted to extend the knowledge of such

monious sanctity. Notwithstanding the disgusting form which he assumed, this god had gained the affection of Diana, on which account, in her festivals, one of the priests always assumed the disguise described in the text.—Ed.

secrets; but we suspect that sorcery was founded by those Egyptian priests of the last order, who, from the commencement of the Roman Empire, had wandered in every direction; and who, although they were publicly despised, yet were consulted in secret, and continued to make proselytes among the lowest classes of society. The apparition and the adoration of a *goat*, formed an essential part of the ceremonies of the Sabbat. The *cat*, also, unhappily for itself, played in these a considerable part, for it often shared the dread which the sorcerers inspired, and the punishments inflicted upon them. It is well known how ancient the worship of the cat and the goat was in Egypt. It is also well known of what importance another agent, the *key*, was in the tricks of witchcraft; how many cures the *Key of St. John** and the *Key of St. Hubert*,† performed. The handled cross, *Crux ansata*, so frequently observed on the Egyptian monuments, was a key;‡ and from the religious ideas which placed it in the hand of the principal gods of Egypt, we discover in the *key* the hieroglyphic of sovereign power.

* The number of the saints of this name in Butler's alphabetical list of the fathers, martyrs, and principal saints, is thirty-two; but I imagine the St. John referred to in the text is he "of the cross," who flourished in the sixteenth century. —Ed.

† St. Hubert must have been originally a man of wealth and consequence, as he was mayor of the palace of Austrasia, A.D. 681, in which year St. Lambert, by whose efforts he was united to the service of the Church, was murdered. St. Hubert was chosen his successor, or Bishop of Maestricht; and among other praiseworthy acts, drove the remnants of idolatry from their last stronghold, in the great forest of Ardennes, on the Meuse. But, like many of his predecessors, he pretended to work miracles; and his shrine has always been celebrated for wonderful cures, especially of persons laboring under hydrophobia; but we possess no evidence of the value of the remedies, when the disease is not the result of imagination.—Ed.

‡ *Encyclop. method. Antiquités*, Art. *Key*.

The *Pseudo-monarchia Dæmonum* appears to us to have had an Egyptian origin; an important fact, since most of the names which this work contains are reproduced, with a little alteration, in the pamphlets respecting witchcraft, which are found in country places.* Among the genii of the *Pseudo-monarchia* one is a mermaid, a figure peculiar to the Planispheres;† another, a venerable old man, mounted on a crocodile and carrying a hawk upon his wrist. A third is represented under the form of a camel, which bespeaks its Egyptian origin (in the astronomy of the Arabs the camel is known to take the place of the constellation of the kneeling Hercules), while another appears partly a wolf and partly a man, displaying, like Anubis, the jawbones of a dog; and a fifth is Ammon or Hammon,‡ whose name reveals its origin. Ammon was the universal, the invisible god, whom the Egyptian priests

* On the second band of the soffit of the portico of the temple of Dendera, may be remarked (says M. Jollois, in the *Description de l'Egypte*) a woman whose body terminates with the tail of a fish. On this emblem, which is also found in the Hindoo, Japan, Chaldean, Phœnician, and even Greek mythologies, see § xii. of the note A., of *dragons and monstrous serpents.*

† J. Scaligeri, *Notæ in M. Manilium*, p. 484.

‡ The ruins of the temple of Jupiter-Ammon are situated in an oasis, five degrees nearly west of Cairo, called the oasis of Siwah. They were discovered by Browne, who traveled into Upper Egypt in 1792; and were visited by Horneman in 1798, and Belzoni in 1816. Horneman discovered there the fountain of the sun, described by Herodotus as warm at dawn, cool as the day advanced, extremely cold at noon, gradually again becoming warmer until sunset, and boiling hot at midnight. Belzoni had no thermometer to measure its temperature; but, judging from his feelings, he states that he found it about 80° early in the morning, 40° at noon, and 100° at midnight. The well is sixty feet deep, in a shaded spot, and it is probable that, were its temperature measured by a thermometer, it would be found nearly the same at all times; but when measured by the hand, a fallacy is produced by the different temperament of the body at the time. At midnight, the body being cool, the water would feel hot; but at mid-day, the body being hot, the water of the same temperature as at midnight would feel cool.—Ed.

supplicated to manifest himself to his worshipers.*

We have already given sufficient space to this discussion; if the inferences which we have drawn from it have any probability, they will authorize us sometimes to quote in our researches, from the modern sorceries, either as borrowed from ancient science, or as proper for explaining, by analogy, some of the apparent miracles of the ancients: and they will at the same time show us, in explaining the progress of the science, how the knowledge of it extended to our times—the errors to which it led in the uneducated classes—the reason why it was enveloped in mystery—the prejudices that this mystery have given birth to in the human mind—and how it silently perished in the hands of the truly enlightened.

CHAPTER X.

Enumeration of the Wonders that the Thaumaturgists acquired the Power of Working, by the Practice of the Occult Science.

The theater where so many prodigies were concentrated for the purpose of trying the courage of the initiated, for subjugating their reason, and rewarding their constancy, the temple, is about to be thrown open.

After having been for many days submitted to various preparations, the design of which was hidden from him, and their nature disguised by religious ceremonies, the aspirant entered upon a course of apparent miracles, with the issue of which he was ignorant; and from beholding which

* According to Hécatæus of Abdera, quoted by Plutarch (*Plutarch. de Isid. et Osirid.*)—Joannis Wieri, *Opera omnia Pseudo-monarchia Dæmonum*, p. 650, § 5.

he was uncertain whether he should be permitted to emerge a victor.

At first he seemed to be placed immovably, and, as it were, enchained, in the depth of an obscurity as profound as those of the infernal regions; and although now and then flashes of light broke for a moment the darkness which surrounded him, horrors only were revealed to him. By these transient flashes he caught glimpses of monstrous phantoms and awful specters; he heard near him the hissing of serpents and the howling of wild beasts; and echo repeated and prolonged in the distance these noises so well calculated to excite alarm. During the calmer intervals such were the overpowering emotions awakened in his mind, that a slight rustling, or even an agreeable sound, made him tremble.* The scene next became lighted up; and, suddenly, he perceived a change coming over the aspect of the place and its decorations; the earth trembled and raised itself up, almost into a mountain, and again sunk into a profound abyss. He then felt himself raised or drawn rapidly along, although unable to discover the impulse he felt constrained to obey. Under his eyes, while gazing upon them, the pictures and marbles became animated; the bronzes shed tears; unwieldy and colossal figures moved and walked; and statues uttered harmonious sounds. He was compelled to advance forward, while awful monsters, centaurs, harpies, gorgons, and serpents with a hundred heads, surrounded and menaced him, bodiless heads grinned at him, and mocked alike his fear and his courage.†

* I have borrowed this sketch from the highly poetical picture drawn by the author of the "*Livre de la Sagesse*," (chap. xvii.) displaying the terrors which tormented the Egyptians during the three days of darkness.

† An exhibition similar to the Phantasmagoria.

Phantoms bearing a perfect resemblance to men who had been long laid in the grave, and who, while alive, had been the objects of his admiration or his attachment, fluttered about him, and shrunk from embraces which they appeared to seek. Thunders rolled, lightnings flashed, water became inflamed and flowed in torrents of fire. A dry and solid body fermented, dissolved, and changed into waves of foaming blood. In one place were seen wretched beings in vain attempting to fill with water a shallow urn, the liquid they unceasingly poured into it never rose to its top; in another place the favored of the gods proved their right to this title by braving the influence of boiling water, of red-hot iron, melted metal, and burning wood. They commanded as masters the most ferocious beasts; they gave the word, and venomous serpents came and crouched at their feet; they seized asps and vipers and tore them asunder, while the reptiles dared not to bite nor revenge themselves upon their tormentors. Then the aspirant heard near him the tones of a human voice,* calling him, and answering his questions; but the nearer he approached to the spot whence the sound proceeded, the less able was he to perceive the person by whom the voice was uttered. At the bottom of a narrow cavern, into which the daylight never penetrated, a light as bright as that of the sun, suddenly bursting forth, discovered to him, at an immense distance, enchanted gardens and palaces, the beauty and the magnificence of which induced him to recognize in them the abode of the immortal gods. There the gods appeared to him, their presence being announced by the most indubitable indications. He saw and he heard them; his mind troubled, his imagination confused, and his reason,

* This was evidently the effect of ventriloquism.—Ed.

overwhelmed by so many miracles, abandoned him; and, intoxicated and transported with admiration, he worshiped the glorious proofs of supernatural power, and bent in devotion before the certain presence of divinity.

However dazzling these pretended miracles were, they sunk to nothing compared with the knowledge which was preserved for the initiated, if his birth, his courage, his zeal, should enable him some day to take a place among the highest orders of the priesthood. All that had struck him with so much admiration he was himself to acquire the power of performing, and the secret of still more important wonders was to be revealed to him.

The minister of a divinity by turns beneficent and revengeful, but ever omnipotent, he was assured that both man and the elements should obey him. He should be rendered capable of astonishing the multitude by his power of abstinence from food, and load the ignorant man with gratitude by purifying the impure beverage that excess of thirst might oblige him to accept. He was informed that he should possess the power of disturbing the minds of men, of plunging them into brutish stupidity or ferocious rage; of obliterating from their memory the recollection of their sorrows, and of freeing them from the power of grief. In addition, he was to be able to exalt their audacity, or their docility, into fanaticism; fulfill their most ardent desires in visions; and often, even without any intermediate means, to act on their senses and govern their will. Arbiter of their disputes, he would have no necessity to interrogate witnesses or to weigh opinions: a simple ordeal should enable him to distinguish the innocent and truthful man from the criminal and perjured, who might

be convicted by him to be worthy of a dreadful and merited death. He was told that in their maladies men should call upon him; and, at his voice, the aid of heaven would descend and heal their diseases; and he should even have the power of snatching from death the prey which the grim destroyer had already seized. Woe to the man who should offend him: he might be struck with leprosy, with blindness, or with death. He was further informed that he might forbid the earth to yield its fruits, that he might poison the atmosphere and the exhalations, which would thus furnish him with arms against his enemies. The most terrible of the elements, fire, should be his slave; at his command it would spring up spontaneously, and bewilder the eyes of the incredulous; water should not extinguish it; it should burst forth awful as thunder against his victims, and, tearing open the bosom of the earth, compel it to ingulf and devour them. The heavens even should be subject to his control, and he might predict to the anxious and fearful the variations of the weather and the convulsions of the earth. He should have power to still the thunder, and to play with the lightning, while trembling men should believe him to be endowed with the power of hurling it at their heads. Such were the promised gifts of the deity who inspired; such the tools of conviction by which the initiated chained to the foot of the altar all men, whatever their rank might be, out of the temple. All were constrained to believe, to adore, and to obey.

These unbounded promises were fulfilled through the means of the occult science: a thousand times has the attentive eye witnessed these apparent miracles, into the causes of which enthusiasm forbade inquiry. And we, to whom this inquiry is per-

mitted, (for to whom, indeed, is it now denied?) we believe these apparent miracles, and admire them for the variety of knowledge necessary to their production; but we are not blind to the charlatanism and imposture so cleverly mixed up with these mysteries; and, therefore, we have endeavored to expose this shameful alliance. By purifying it from the dross that soils it, the precious ore recovers all its brilliancy and value.

CHAPTER XI.

Apparent Miracles performed by Mechanism.—Moving Floors.—Automata.—Experiments in the Art of Flying.

Among the wonders which were invented and composed, as experiments and exhibitions for the initiated, we can not avoid, at the first glance, perceiving that many were the result of an ingenious application of the principles of mechanism and acoustics. The skillful illusions of optics; of perspective; the phantasmagoria; many inventions belonging to hydrostatics and chemistry; the practical use made of observations of the habits and sensations of animals; and lastly, the employment of those secrets, practiced in all ages and always beheld with astonishment, which preserve our frail organs and susceptible skins from the ravages of fire—were all called in to assist in deluding the aspirant. We do not discover, it is true, in the writings of the ancients any positive indication of their possession of all this knowledge; but the effects speak for themselves, and constrain us to admit their existence as causes. We repeat that it is wiser to concur in such views than boldly to accuse the accounts of such miraculous events of

being misrepresentations. The marvelous, and apparently impossible, have been robbed of their wonderful character by the progress of science. Much that the ancients assert was done, we possess the means of doing: equivalent means were therefore known to them. I demand of those who would reject this conclusion, to say whether the history of the sciences—that history enveloped in so much darkness—has been handed down to us so detailed and complete that we can with certainty define its extent, or determine its limits? In reference to mechanism, at least, we dare not attempt it. The science of constructing wonderful machines, whose effects seem to overthrow the whole order of nature; in one word, mechanism—for it is thus that Cassiodorus* defines it—was carried by the ancients to a point of perfection that has never been attained in modern times. We would inquire, have their inventions been surpassed in our age? Certainly not; and at the present day, with all the means which the progress of science and modern discoveries have placed in the hands of the mechanic, have we not been assailed by numerous difficulties, in striving to place on a pedestal one of those monolithes that the Egyptians, forty centuries ago, erected in such numbers before their sacred edifices. It is, indeed, sufficient to point to the inventions of Archimedes, to render credible the wonders that are said to have been performed by mechanism in the temples. But let us observe how that great man, misled by the doctrines of Plato, attached only an ordinary value to the most brilliant applications of science; holding

* Cassiodor., *Variar.*, lib. i., cap. xliv. Cassiodorus, a statesman and learned writer of the sixteenth century, who filled several offices under Theodoric. He lived to the age of one hundred; but some time before his death he grew tired of public life, and retired to a monastery, where he ended his days, A.D. 562.—ED.

theory and speculative disquisitions in a much higher estimation. It is even believed,* though perhaps incorrectly,† on the evidence of Plutarch, that he left nothing written on the construction of those machines which had acquired him so much renown. Thaumaturgists alone understood the true value of the secrets acquired by the practice of science, yet beheld unmoved the injustice done to the philosophers, who aided them by preserving their means of power in inaccessible security.

In the infamous mysteries which were properly and severely denounced by the Roman magistrates,

* Plutarch in *Marcell.*, § 18 et § 22.

† Cassiodorus (*Variar.*, lib. i., cap. xlv.), in commenting upon the works translated from Greek into Latin by Boethius,* positively mentions a treatise on mechanism, by Archimedes, entitled, "*Mechanicum etiam Archimedem latialem siculis reddidisti.*" The epithet conferred by Cassiodorus on every author explains the title or the subject of the translated work: "*Pythagoras musicus*;" "*Plato theologus*;" "*Aristoteles logicus*;" &c. The meaning of the word *mechanicus* is rendered obvious in the continuation of the letter in which Cassiodorus gives mechanism the definition we have quoted. When it is recollected that Plutarch was not an infallible authority in facts, we shall be inclined to give more weight to the assertion of Cassiodorus, the friend and cotemporary of Boethius. It would, at least, be very desirable that a search should be made in all libraries containing manuscripts, for a translation of the treatise, the original of which, if it ever existed, has long since disappeared.

* Annius Manlius Torquatus Severius Boethius was born A.D. 455, of an ancient, noble Roman family. He studied at Athens, and acquired so early a character for learning and genius, that, on his return to Rome, it secured for him many friends and admirers, and also the consulship at the age of thirty-two, when Theodoric reigned in Italy. He devoted the whole of the time which he could spare from the service of the Commonwealth to the cultivation of science. His treatise upon music was one only of his voluminous labors, the principal of which was entitled, "De Consolatione Philosophiæ," composed in prison, into which he had been thrown by Theodoric, under a false accusation that he attempted to excite discontent against that monarch, and that he sought means to restore freedom to the Romans. He had scarcely finished his treatise, when Theodoric ordered him to be beheaded, which was done in prison, October 23, A.D. 526. Although a Christian, yet it is remarkable that he refers to none of the consolations to that faith. Boethius must not be confounded with Boëtius, the Scottish historian, who flourished in the fifteenth century, and who was also a writer of undoubted veracity. Erasmus, speaking of him, says, "he knew not to lie."—Ed.

in the year 186 B.C., and which were doubtless derived from more ancient initiations, certain machines were employed to raise up, and cause the disappearance of the unhappy victims, who were said to have been ravished by the gods.* In a similar manner, in other cases, the aspirant to initiation felt himself suddenly lifted up by some invisible power. We might be astonished that imposture thus exposed should continue to be revered in other mysteries, if human credulity did not everywhere present contradictions as palpable. In order to descend into the cave of Trophonius, those who came to consult the oracle placed themselves before an aperture apparently too narrow to admit a middle-sized man; yet, as soon as the knees had entered it, the whole body was rapidly drawn in by some invisible power. The mechanism used for this purpose was connected with other machinery, which at the same time enlarged the entrance to the grotto.†

When the sages of India conducted Apollonius to the temple of their god, singing hymns and forming a sacred march, the earth, which they struck

* Tit. Liv., lib. xxix., cap. xiii.

† Clavier, *Mémoire sur les oracles anciens*, pp. 149, 150. The cave of Trophonius was one of the most celebrated oracles of Greece. The individual whose name the cave bore, and who was thus honored as a god, was, in conjunction with his brother Agamides, the architect of the temple of Apollo at Delphi, and was rewarded by the priests with assassination instead of payment for his labors. The brothers were desired by the god, through the priests, to be cheerful, and to wait eight days for their reward, at the termination of which time, however, they were found dead in their beds.

The person who went to consult the oracle was obliged to make certain sacrifices, to bathe in certain rivers, and to anoint his body with oil. He was then clothed in a linen robe, and, with a cake of honey in his hand, he descended in the manner described in the text into the cave. What passed there was never revealed; but the person on his return generally looked pale and dejected.—Ed.

with their staves in cadence, was agitated like a boisterous sea, and raised them up nearly two feet; then calmed itself and resumed its usual level.* The act of striking with their sticks betrays the necessity of warning workmen, who were placed beneath, to raise a moving stage covered with earth; an operation readily effected by the aid of mechanism, very easy to be comprehended.

According to Apollonius, it was only the sages of India who could perform this miracle.† Nevertheless, it is probable that a similar secret existed in other temples. English travelers,‡ who visited the remains of the temple of Ceres, at Eleusis, observed that the pavement of the sanctuary is rough and unpolished, and much lower than that of the adjacent portico. It is therefore probable that a wooden floor, on a level with the portico, covered the present floor, and concealed a vault destined to admit of the action of machinery beneath the sanctuary for moving the floor. In the soil of an interior vestibule, they observed two deeply

* Philostrat., *De vit. Apoll.*, lib. iii., cap. v.

† Philostrat., *De vit. Apoll.*, lib. vi., cap. vi. Apollonius was, however, a mere narrator of wonders, not very worthy of belief. He was a native of Tyanus, in Cappadocia, and lived in the commencement of the Christian era. He traveled by land into India, and on his return propagated accounts of the most incredible prodigies and miracles which he had witnessed; but he was a shameless impostor, and one of the many pretenders to miracles in his time. One of the few redeeming acts in the life of Nero was the banishment of our hero and his fellow miracle-workers from Rome. At Athens, Apollonius was initiated into the Eleusian mysteries, and performed many pretended miracles before his death, which occurred when he was above one hundred years of age. It is remarkable that Philostratus, his biographer, should have believed a tithe of the wonders he has related in his life: and, notwithstanding the evident falsehoods of Apollonius, such was the superstition and credulity of his period, that temples and statues were erected in his honor, and his appellation was, "the true friend of the gods!"—Ed.

‡ *The unedited Antiquities of Attica, by the Society of Dilettanti.* London, 1817.

indented grooves, or ruts; and as no carriage could possibly be drawn into this place, the travelers conjectured that these were grooves intended to receive the pulleys which served in the mysteries to raise a heavy body—"perhaps," said they, "a moving floor." In confirmation of their opinion, they perceived, further on, other grooves, which might have served for the counterbalances to raise the floor; and they also detected places for wedges, to fix it immovable at the desired height. These were eight holes fixed in blocks of marble and raised above the ground—four on the right, and four on the left—adapted to receive pegs of large dimensions. The seats, on which a person sitting down finds himself fixed, and without the power of moving from, are not, as was supposed, the invention of the eighteenth century. It is related by the mythologists, that Vulcan presented a throne to Juno, on which the goddess had no sooner seated herself than she found herself enchained to it.*

Vulcan decorated Olympus with tripods, which, without any apparent motion, took their places in the banquet-hall of the gods.† Apollonius saw and admired similar tripods among the sages of India.‡ The construction of automata is not a recent invention; and we may venture to relate, on the authority of Macrobius,§ that at Antium and in the temple of Hierapolis there were moving statues.

Another proof of the ingenuity of the ancients was the wooden dove, so wonderfully constructed by the philosopher Archytas,‖ that it flew, and

* Pausanias, *Attic.*, cap. xx.

† Homer, *Iliad*, lib. xviii., vers. 375–378.

‡ Philostrat., *De vit. Apoll.*, lib. vi., cap. vi.

§ Macrob., *Saturnal.*, lib. i., cap. xxiii.

‖ Archytas was a native of Tarentum, in Italy, and flourished four hundred years before the birth of our Savior. He was a cotemporary of Plato, who had been his pupil. He is said to have been a man distinguished for his mathematical knowledge and

sustained itself for some time in the air.* This master-piece of art naturally reminds us of the desire of man, in all ages, to become a rival of the birds of the air, as swimming and the art of navigating in the waters have enabled him to become the rival of the inhabitants of the rivers and seas. We need not mention the story of Dædalus and Icarus, as an example. Dædalus, pursued by Minos, for having betrayed to Theseus the secret of the windings and openings of the labyrinth of Crete, flew from that island with his son;† but his wings were sails, which he was the first in Greece to apply to barks, while the vessels of his persecutor were only rowed with oars. It is probable that he learned the use of sails in Egypt, as he had borrowed from that country the idea of the construction of the labyrinth. But if we turn our eyes toward the East—which we shall often have occasion to do—an author, although we must admit that he is not much to be relied upon,‡ describes a statue of Apollo, which, when carried in religious ceremonies by the priests of the god, raised itself in the air and fell again on exactly the same spot from which it had been carried—a feat similar to that which may be seen performed by any aeronaut in our public gardens. Narratives, the origin of which is certainly very ancient, furnish us, also, with two facts which should not be passed over in silence. The one describes a flying chariot, which

discoveries in practical mechanics, and to have been also a profound statesman and a skillful general. Beside the wooden dove, he invented the screw, the crane, and various hydraulic machines. He perished by shipwreck, on the coast of Apulia.—Ed.

* A. Gell., *Noct. Attic.*, lib. x., cap. xiii.

† Heraclit., *De Politiis. verb. Icarus.* It is supposed that their sails were their cloaks elevated on oars, and that the son, having exercised less skill than his father, in managing his bark, was wrecked on the coast of Icaria.—Ed.

‡ *Le traité de le déesse de Syrie.*

a man directed through the air as he pleased, and which was exhibited as a master-piece of art, and not of magic.* The other states, that beneath a balloon was attached a little car, in which a man placed himself, and the balloon, shooting up into the air rapidly, transported the traveler wherever he desires to go.†

What shall we conclude from these recitals? There can be only one conclusion—namely, that the performances of this description of mechanism may probably be assigned to an epoch even more remote than that of Archytas;‡ and that the Tarentine, the disciple of Pythagoras, who was himself the disciple of the sages of the East, perhaps only excited the admiration of Italy by secrets acquired in the temples of Memphis or of Babylon.

* *Les Mille et un Jours*, jours cx–cxv.

† *Les Mille et une Nuits*, 556e nuit, tome vi., pp. 144–146.

‡ It is a curious fact, that, notwithstanding the efforts which were made at various periods to enable men to raise themselves in the atmosphere, the first aerial voyage in Europe did not take place until the year 1783, when the Mongolfiers, paper manufacturers at Annonay, near Lyons, raised a paper balloon of twenty-three thousand French cubic feet of capacity, filled with air rarified by heat in a chaffer placed below the mouth of the balloon. It rose with great force and rapidity to an elevation of ten thousand toises; but, as the air soon cooled, it gradually descended. It was, however, thought imprudent to risk human life in these balloons, and even in those filled with hydrogen gas, when it was first employed; but, on the 15th of October, 1783, M. Pilatre de Rozier ascended in a Mongolfier, held by ropes, to the height of one hundred feet; and on the 2d of November, of the same year, M. Pilatre and the Marquis d'Arlander left the earth in a free balloon, and descended, after traveling five thousand toises. The possibility of traveling in this manner being thus established, aerostation has gradually improved; but although aeronauts can now rise and descend at pleasure, yet they are not able to direct a balloon in the manner of a vessel: they are, therefore, at the control of every current of air into which the balloon is carried.—Ed.

CHAPTER XII.

Acoustics.—Imitation of Thunder.—Organs.—Resounding Chests.—Androïdes, or Speaking-Heads.—The Statue of Memnon.

IMPOSTURE always betrays itself. However much the mind of the candidate might have been preoccupied, the creaking of the pulleys, the coiling of cordage, the clicking of wheels, and the noise of the machines, must necessarily have struck upon his ear, and disclosed the weak hand of man in those exhibitions, which were intended to excite admiration as the work of supernatural powers. This danger was felt and foreseen; but far from seeking to deaden the sound of the machines, those who worked them studied to augment it, sure of increasing the terror intended to be excited. The tremendous thunder accompanied with lightning was regarded by the vulgar as the arm of the avenging gods; and the Thaumaturgists were careful to make it heard when they spoke in the name of the gods.

The labyrinth of Egypt inclosed many palaces so constructed that their doors could not be opened without the most terrific report of thunder resounding from within.* When Darius, the son of Hystaspes, mounted the throne, his new subjects fell prostrate before him, and worshiped him as the elect of the gods, and as a god himself; and at the same moment, thunder rolled, and they saw the lightning flash.†

The art of charming the ears was as important to the Thaumaturgists as alarming the multitude with awful noises. Pausanias, who seriously re-

* Plin., *Hist. Nat.*, lib. xxxvi., cap. xiii.

† Tzetzes, *Chiliad.*

counts so many fabulous miracles, nevertheless taxes Pindar with having invented the fable of the *golden virgins*, who were endowed with a ravishing voice, and, according to the Theban poet, adorned the roof of the temple of Delphi.* Less incredulous than Pausanias, we may suppose that behind the statues of the virgins, or within the gilded bas-relievos, was concealed a musical instrument, the sounds of which imitated the human voice. A simple organ would suffice for this purpose, and hydraulic organs were well known to the ancients. A passage in the writings of St. Augustin seems even to indicate that organs with blowers were not unknown to them.

An invention much less familiar is noticed in the history of a wonderful stone, said to have been found in the Pactolus. This stone, when placed at the entrance to a treasure, kept away thieves, whose fears were aroused by hearing the loudest tones of a trumpet issue from it.† There are strong coffers made at the present day, which, when clandestinely opened, produce loud sounds.‡ The Phrygian inventor of the first of these wonders of mechanism had, perhaps, as we are led to believe, veiled his secret under a fable; for, if he had described it literally, it would not have been credited that a stone found on the shore, or the neighboring mountains of Pactolus, could possess such a power. As to its properties of sound, they were only possessed in common with the sounding-stone preserved at Megara;§ the red granite of Egypt; the stones employed in China for making

* Pausanias, *Phocic.*, cap. v.

† *Treatise on Rivers and Mountains*, attributed to Plutarch, § viii.

‡ Louis XV. possessed one, and one was offered to Napoleon in 1809.

§ Pausanias, *Attic.*, cap. xlii.

musical instruments; the sparkling green stone, of which a statue found in the ruins of Palenqui-viejo was made;* and the basalt, of which there are large blocks existing in Brazil, from which a very distinct sound is awakened whenever they are struck.† The rest is due to ignorance and a love of the marvelous.

It is often related in ancient history, that distinct words have been uttered by a child at the moment of its birth; that trees also, and statues have spoken; and that sounds have been spontaneously uttered in the somber gloom of a temple. The phenomena of ventriloquism affords a satisfactory explanation for many of these stories, but not for all of them. It is therefore more natural to admit that these sounds, the origin of which is not perceptible, are the effects of art; and to attribute these to the invention of the Androïdes, which, although, in our own times, explained in well known works,‡ yet has, under the name of the Invisible Girl, excited the admiration of the vulgar, and even of those who are unwilling to class themselves among the ignorant. Questions are addressed, in a low tone, to a doll, or a head made of card-board or of metal, or even to a glass-box; in a short time replies are heard which appear to proceed from the inanimate object. Acoustics teaches us the methods which enable a person, at some distance, to hear and to be heard as distinctly as if he occupied the place whence the doll apparently speaks. It is not at all a modern invention; for more than two centuries have elapsed since Porta§ explained the principles of this invention in

* *Revue Encyclopédique*, tome xxxi., p. 850.

† Mawe's *Journey into the Interior of Brazil*, vol. i., chap. v., p. 158.

‡ *Encyclopédie*, art. *Androide*.

§ Giambatista Porta, a Neapolitan, in the sixteenth century,

his *Natural Magic:** but, in more ancient times, its principles were kept secret, and only the wonders performed by it presented for the admiration of the multitude.

Toward the end of the fourteenth century, a speaking-head, made of earthen ware, excited in England the astonishment of the curious. The one made by Albertus Magnus,† in the thirteenth

wrote, at a very early age, the first books of his work on Natural Magic, which accounts for the many absurd and fantastic notions which, mixed up with deductions of true science, they contain. He was, however, a man of learning and genius, and did much in his time to forward the pursuit of science. He invented the camera obscura. His "*Magia Naturalis*" is a compilation from both ancient and modern authors, and contains much curious matter, badly put together. Beside many philosophical treatises, he wrote several dramatic works.—Ed.

* Porta, *De Magia Naturali. Panicrol. Rerum recens invent. Giambatista*, tit. x. For the explanation of the Invisible Girl, see Brewster's *Letters on Natural Magic.*

† Albertus, surnamed Magnus, from the Latinizing of his surname, which was *Great*, was a native of Suabia, and born in 1205. He was ardently desirous of acquiring knowledge, and studied with assiduity; but being of slow comprehension, his progress was not adequate to his expectations; and, therefore, in despair, he resolved to relinquish books, and bury himself in retirement. One night, however, he saw a vision of a beautiful woman, who accosted him, and inquired the cause of his grief. He replied, that in spite of all his efforts to acquire information, he feared he should always remain ignorant. "Have you so little faith," replied the lady, "as to suppose that your prayers will not obtain what you can not of yourself accomplish? I am the Holy Virgin, and I have heard your prayers." The young man prostrated himself at the feet of the Virgin, who promised him all that he desired, but added that, as he preferred philosophy to theology, he should lose his faculties before his death. She then disappeared, and the prediction was accomplished. Albertus became unwillingly Bishop of Ratisbon, but he relinquished the see within three years, and resided chiefly at Cologne, where he produced many wonderful works. It was said that he constructed an automaton which both walked and spoke, answered questions, and solved problems submitted to it. Thomas Aquinas, who was the pupil of Albertus, was so alarmed on seeing this automaton, which he conceived to be the work of the devil, that he broke it to pieces and committed it to the flames. When William, Count of Holland and King of the Romans, was at Cologne, Albertus invited him to a banquet, and promised that his table should be laid out

century, was of the same material. Gerbert, who, under the name of Sylvester II., occupied the papal throne from the years 991 to 1003, constructed a brazen head possessing a similar property.* This master-piece of art was the cause of his being accused of magic; perhaps the accusation was not unfounded, if they applied the same meaning to the word as we do; it was the result of science concealed from the knowledge of the common people.

The philosophers, in these inventions, made no new discovery; they had received from their ancient predecessors a secret which surpassed and alarmed the weak understanding of their cotemporaries.

Odin, who implanted among the Scandinavians a religion and magical secrets borrowed from Asia, possessed a speaking-head. It was said to be the head of the wise *Mirme*, which Odin, after the death of that hero, had caused to be encased in gold. He consulted it, and the replies which he was supposed to have received were revered as the oracles of a superior being.

Beside the *Northern legislator* there were others who had endeavored to render credulity more eager and submissive, by asserting that the speaking-heads they served had always been animated by the spirits of living men.

We shall not, however, quote, in this sense, the

in the middle of his garden, although it was then winter, and severe weather. William accepted the invitation; and, on arriving at the house of Albertus, was surprised to find the temperature of the air as mild as in summer, and the banquet laid out in an arbor formed of trees and shrubs covered with leaves and flowers, exhaling the most delicious odors, which filled the whole of the garden. Albertus was reputed a magician; but, nevertheless, after his death, which occurred in 1292, in his seventy-seventh year, he was canonized.—Ed.

* Elias Schedius, *De Diis Germanis*, pp. 572, 573.

story of the child that was devoured whole by the ghost of Polycritus, with the exception of its head, which uttered prophecies that were afterward verified:* this fable is most probably an allegory. But at Lesbos a speaking-head delivered oracles: it predicted to the great Cyrus (in rather equivocal terms, it is true) the bloody death which should terminate his expedition against the Scythians. It was the head of Orpheus; and it was so celebrated for its oracular responses among the Persians, and also among the Greeks, from the time of the Trojan war, that Apollo himself became jealous of its fame.†

According to many Rabbins, the *Theraphim* consisted of the embalmed heads of the dead, under whose tongues a thin plate of gold was fixed,‡ and, like the head of Mirme, also encased in gold. Other Rabbins report that the Theraphim were phantoms, who, having received the influence of powerful stars, conversed with men and gave them wholesome advice.§ We are led from the expressions of Maimonides, on this subject, to infer that buildings were erected expressly to contain these speaking-images; a circumstance which explains why so much care was taken to place the images against the wall—a certain position being absolutely necessary to produce an apparent miracle depending on acoustics. This miracle was not unknown in that country of wonders, whence the Hebrews acquired their knowledge. The priests

* Phlegon, *De Mirabilibus.*—Noël, *Dictionnaire de la Fable*, art. *Polycrite.*

† Philostrat., *Vit. Apollon.*, lib. iv., cap. iv.—Philostrat., *Heroic in Philoctete.*

‡ Fromann, *Tract. de Fasc.*, pp. 682, 683.

§ R. Maimonides, *More Nevochim*, part iii., cap. xxx. "*Et ædificaverunt palatia et posuerunt in eis imagines.*"—Elias Schedius, *De Diis Germanis*, pp. 568, 569.

(Mercurius Trismegistus* is our authority) possessed the art of making gods† and statues endowed with understanding, who predicted future events and interpreted dreams. It was even asserted that the Theurgists, who were addicted to doctrines less pure, knew also how to make gods and statues animated by demons, that were little inferior in their supernatural powers to those made by the real priests. In other words, the same physical secrets were known and practiced by the rival priesthoods.

The ancients, as we are informed, were acquainted with the art of constructing Androïdes,‡ and this art has been preserved and handed down to our workshops from their temples. Through the dark period of the Middle Ages, we draw this conclusion from what has preceded; and it seems more admissible than the supposition of impostures and gross deceptions§ constantly renewed. We may inquire whether it was an application of science, superior or equal to those we have enumerated, that produced in Egypt the wonder of the statue of Memnon, which every morning raised its harmonious voice to welcome the rising sun? Was

* The Egyptian Hermes, who is reported to have invented writing, and first taught astrology and the science of astronomy. —Ed.

† "*Artem quâ deos efficerent.*" Mercurii Trismegisti, *Pymander. Asclepius*, pp. 145, 146, et 165 (in 12mo., Basileæ, 1532).

‡ We believe this explanation sufficient; but to render it more complete, we may cite the speaking-heads presented by the Abbé Mical to the Académie des Sciences, in 1783. They pronounced words and phrases, but did not produce an exact imitation of the human voice.

§ Far from exaggerating the knowledge possessed by the ancients in acoustics, we do not go so far as Fontenelle, who suspects (*Histoire des Oracles*, part i., chap. xiii.) that the ancient priests were acquainted with the use of the speaking-trumpet. Kircher thinks Alexander made use of a speaking-trumpet, that he might be heard at the same moment by the whole of his army. It does not seem very probable.

the secret of this apparent miracle derived from an art ingeniously concealed, or only from a phenomenon, which the spectators, eager for miracles, did not attempt to unfathom? It seems to me that all the conjectures that have been hazarded on this subject are reduced to this alternative.*

The second supposition furnishes us with another example of the artifice which the priests employed to convert into apparent miracles extraordinary facts, calculated to astonish the vulgar. The first opinion has been adopted by many cotemporary authors; and it was what I believe the priests themselves were anxious should prevail.

Juvenal denominates the sounds that issued from the statue magical;† and we have mentioned that among the ancients magic was the art of working wonders by scientific means, unknown to the multitude. A scholiast of the Latin satirist is still more explicit; for, in commenting on this passage, he speaks of the wonderful mechanism in the con-

* See note B, vol. ii., *on the statue of Memnon.* Wonderful as many of the automata of the ancients were, they yield the palm to some of the modern. I must refer the reader to Dr. Brewster's "Letters on Natural Magic" for a description of several, and among them the Automaton Chess-Player, which was some years since exhibited in London, and excited much astonishment. I shall notice here only the Flute-Player of Vaucauson, which was exhibited in Paris in 1736. It was seen and described by M. d'Alembert,* who says, "it really played on the flute;" that is, it projected the air with its lips against the embouchure, producing the different octaves by expanding and contracting their opening, forcing more or less air, in the manner of living performers, and regulating the tones by its fingers. It commanded these octaves, the fullest scale of the instrument, containing several notes of great difficulty to most performers. It articulated the notes with the lips. Its height was nearly five and a half feet, and was placed on a pedestal, in which some of the machinery was contained. Dr. Brewster† has given a popular description of the machinery.—Ed.

† "*Dimidio magicæ resonant ubi Memnone chordæ.*"

* *Encyclop. Math.*, art. *Androide.* † *Letters on Natural Magic*, p. 204.

struction of the statue ;* and adds that its voice was clearly the result of the working of machinery. When this writer thus reduced to the performance of mechanism the wonder of Memnon's statue, he spoke undoubtedly from the authority of ancient tradition. This tradition, however, never lessened the sentiments of admiration and piety, which were awakened by the sacred voice in the souls of its auditors :† they recognized in it a miracle according to the primitive meaning of the word—a wonderful circumstance, the invention of which they delighted to ascribe to the inspiration of the gods, but which, we need scarcely add, was not at all supernatural. In the end, the idea of its divine origin darkened the minds of the multitude ; and, perhaps, without the priest having attempted to deceive the worshipers, this wonder of art would have become transformed into a religious prodigy, which was every day renewed.

CHAPTER XIII.

Optics.—Effects similar to those exhibited in the modern Dioramas and Phantasmagorias.—Apparitions of the Gods, and Shades of the Dead.—The Camera Obscura.—Magicians changing their Appearances and their Forms is an incredible Miracle.

All our senses are tributary to the empire of the marvelous ; the eye is more so than the ear. By too much prolongation, agreeable sounds lose their charm—loud, fear-inspiring noises become merely deafening, and miraculous voices become

* Quoted by J. Phil. Casselius, *Dissertation sur les pierres vocales ou parlantes*, p. 8.—Langlès, *Dissertation sur la statue vocale de Memnon.—Voyage de Norden*, tome ii., p. 237.

† See the inscriptions engraved on the colossal statue. M. Le Tronne has reunited and explained them in a work entitled, *La Statue de Memnon* (in 4to., Paris, 1833), pp. 113-240.

suspected; but optical illusions, though succeeding each other without a pause, never fail to keep up the attention of the individual eager after novel spectacles: their variety and their contrasts leave no space for reflection, nor cause any fatigue in beholding them.

From the nature of some optical wonders displayed in the assumed miracles of the Thaumaturgists, and in the pompous and terrible representations of mysteries and initiations, we are authorized to conclude that the aid of scientific resources was requisite for carrying them into effect. The ancients were acquainted with the mode of fabricating mirrors, which presented the images multiplied or reversed; and, what is more remarkable, in certain positions lost entirely the property of reflecting. It is unimportant whether the latter peculiarity depended solely on sleight of hand, or was analogous to polarized light,* which, reaching the reflecting body under a certain angle, is absorbed without producing any image. It is very evident that, in either case, the employment of such mirrors was well fitted to give birth to numerous apparent miracles. Aulus Gellius,† quoting Varro, informs us

* On the supposition that light consists of particles of matter transmitted from the sun and luminous bodies, in rectilinear directions or straight lines, its polarization is the effect produced upon these particles by the attraction exercised upon them by the particles of what are called doubly refracting crystals, and certain reflecting surfaces, when the particles of light pass through the former, or fall upon the latter at a particular angle. —Ed.

† Aul. Gell., *Noct. Attic.*, lib. xvi., cap. xviii. The following is the termination of the Latin passage: "*Ut speculum in loco certo positum nihil imaginet; aliorsum translatum faciat imagines.*" The compiler, repeating what he has not proved, believes that the phenomenon belongs to the place, and not to the position of the mirror.

Aulus Gellius, a celebrated Roman grammarian, was born at Rome, in the commencement of the second century, and died in the reign of the Emperor Marcus Aurelius. His "*Noctes Atticæ*"

of these facts; at the same time he considers the study of such curious phenomena as unworthy the attention of a philosopher. From whatever may have given rise to an opinion so unreasonable, yet so universal, even among the enlightened classes of the ancients, and held by Archimedes himself,* its vast advantage to the Thaumaturgists is easily perceived. Had those who, under the enlightening influence of increasing civilization, were the reformers of science devoted their efforts to the experimental elucidation of phenomena, instead of confining themselves to theoretical inquiries, the

were written in the winter evenings, while he was in Attica, to amuse his children. The work is a medley of history, anecdotes, poetry, and dissertations on philosophy, geometry, and grammar; but it often affords good explanations of antique monuments.—Ed.

* Although the wonders related as having been achieved by this extraordinary mathematician have been probably exaggerated, yet there can be only one opinion of his advance far beyond the period in which he lived, in every branch of physical science. Independent of the machinery which he is said to have employed to lift out of the water, and again drop into it, the barks that constituted the fleet of Marcellus, the Roman consul, when he besieged Syracuse, the burning mirrors which he constructed to set on fire the enemy's fleet is a sufficient proof of his acquirements. According to Tzetzes, the historian, who has recorded the events of the siege, "when the fleet of Marcellus was within bow-shot, the old man, Archimedes, brought an hexagonal mirror, which he had previously prepared, at a proper distance from which he also placed other smaller mirrors of the same kind, that moved in all directions on hinges; and when placed in the sun's rays, directed them upon the Roman fleet, whereby it was burned to ashes." The screw known by his name, and now employed instead of paddles in steam navigation, and the art of determining the value of metals by their relative specific gravity, are among the inventions ascribed to Archimedes. His acquaintance with the power of the lever led him to make this celebrated declaration—"Give me the place on which I may stand, and I will move the earth." He was so deeply engaged in solving a problem when the Roman soldiers entered Syracuse, that he was not aware of their being in possession of the town; and a soldier, not knowing who he was, killed him, although Marcellus had given orders intended to secure the safety of the philosopher. His death occurred two hundred and twelve years before the birth of Christ.—Ed.

miraculous secrets of the charlatan could no longer have merited the name of magic.

The luxurious gardens, the magnificent palaces, which in the initiations suddenly appeared from the depths of obscurity, brilliantly illuminated by magic light, or, as it were, by a sun of their own,* are reproduced for us in the justly admired modern invention of the Diorama. The principal artifice lies in the manner of throwing light upon the objects, while the spectator is kept in darkness. This was not difficult, as the initiated hurried from one subterraneous apartment to another; and, being now elevated in the air, and again suddenly precipitated, he might easily imagine himself to be still in the bowels of the earth, from the obscurity of the place that inclosed him, although on the level of the ground. And how, we may inquire, could it happen that the Thaumaturgist, whose whole aim was to discover means of multiplying his wonders, could remain unacquainted with this invention? Observation was sufficient to reveal it, without any effort of art. If a long gallery was terminated by an arbor of umbrageous trees, and the gallery lighted at one extremity only, the landscape beyond the arbor would appear nearer, and display itself to the eye of a spectator like the picture in a Diorama.

The illusion was susceptible of being increased, by the union of mechanical agents aiding the effects of painting and of perspective. Thus, in the diorama, exhibited in Paris, in 1826, representing a ruined cloister,† a door was violently closed and opened, as if from the effects of a strong wind. When open, an extensive, beautiful country was

* . . . . . *Solem que suum, sua lumina norunt.*
Virgil, *Æneid*, lib. vi., ver. 641.

† The cloister of Saint Wandrille, near Rouen.

seen beyond it; shadows were cast, by trees, on the old walls, more or less deep, according as the clouds flew rapidly across the sky above the ruins, and might be supposed occasionally to interrupt, more or less, the light of the sun. When this artifice, however little it is estimated by the severer votaries of the Fine Arts, transported the credulous spectator to the interior of a sanctuary, and displayed before him, excited as he was by other apparent miracles, would he have had the smallest doubt regarding the reality of the appearances; or, that they were true representations of animated nature?

Apparitions, although the most common of miracles founded on optics, have obtained the greatest celebrity.

In very remote times, and under the empire of unprogressing civilization, it was believed that every man who had seen a god must die, or at least lose the use of his eyes. This singular belief, the cause of which we shall notice elsewhere, and the dread it excited in the ardent imaginations of the enthusiastic, yielded in time, owing to the direct communication with the object of his adoration, which circumstances afforded. Apparitions of the gods, far from being dreaded, were deemed significant of their favor, and hallowed the place where they received the homage of mortals. The temple of Enguinum, in Sicily, was revered, not so much on account of its antiquity, as because it had been occasionally favored by the apparition of the goddess-mother.* Æsculapius had a temple at Tarsus, where he frequently manifested himself to his worshipers.† Cicero mentions frequent apparitions of the gods.‡ And Varro, quoted by St. Augus-

* Plutarch, in *Vit. Marcell.*
† Philostrat., in *Vit. Apollon.*, lib. i., cap. v.
‡ Cicer., *De natur. Deor.*, lib. ii.

tin,* affirms that Numa and Pythagoras saw images of the gods in the water, and that this kind of divination had been brought from Persia into Italy, as well as the art of causing apparitions of the dead.† In fact, these two arts ought to form but

* St. Augustin, *De civitate Dei*, lib. vii., cap. xxxv.

† The efficacy of invocation of the dead is not doubted by St. Justin. (*Pro Christianis*, Apoll. ii.) In the dialogue with the Jew Tryphon, this father of the Church acknowledges that the souls of the just, and of the prophets, are subject to the power of the Psychagogues, as the soul of Samuel obeyed the witch of Endor.

The ancient Greeks, who obtained their theology from the Egyptians; the Romans, who procured theirs from the Greeks; and the northern nations, who followed the superstitions of both, were firm believers that the souls of the dead revisited the earth, and appeared to the living; and that magicians had the power of calling them up. They also believed that the spirits of the departed were capable of foretelling future events. Spirits were, therefore, apparently called, and the images of the dead presented to the eyes of the living. It was not essential that these should necessarily be deceptions of the priests; for when the mind is prepared for them, and the nervous system is in an excitable state, spectral phantasms are both seen and heard.

It is unnecessary to insert here any of the many thousand tales of apparitions which have been recorded both in ancient and in modern times, in every country in both hemispheres of the globe; my object being to explain these spectral phantasms, not to relate instances of them, except such as may be useful for the illustration of my argument. I contend that these phantasms never occur in a healthy condition of the brain and nervous system, which, in order to produce them, must be either transiently or permanently excited.

Under transient changes from the normal state of the nervous system, if these have been produced by an exciting agent, all ordinary sensations are felt with an increased intensity; and, consequently, in certain states of the habit, impressions of former things, by the influence of association alone, awakened, as it were, by incidental circumstances, become so vivid to the mind, that they appear as actual impressions perceived at the moment through the organ of sight. The inhalation of some gases, as, for instance, nitrous oxide, and the excitement of the mind by expectation, will produce such a change in the nervous centers as will cause either the most pleasurable or the most frightful sensations to be experienced, accompanied with vivid images of a corresponding character. The delirium of a fever is an augmented derangement of the nervous system; during the continuance of which, images of persons, often long before dead, became vivid to the eye, and their voices audible to the ear, so that the patient sees them, and holds conversation with them, and

one; and we find them in Asia, long before the age of Numa, or of Pythagoras. The witch of Endor, who summoned before Saul the shade of Samuel, declared she saw gods rising out of the

can only be aroused from the reverie by some one really speaking to him, and for a moment interrupting the morbid association of ideas, into which, however, he relapses, as soon as his attention ceases to be directed into a new channel. Such spectral illusions occurring independent of fever, in a highly susceptible frame, operate so energetically on the brain, as to make impressions sufficiently powerful to produce disease, and even to destroy life, when a confirmed belief in their reality exists. Many cases might be quoted corroborative of this opinion. I will mention two only. A distinguished physician having suffered great fatigue from a long, professional journey, during which he had taken scarcely any nourishment, after seeing his patient, retired to his sleeping apartment, and sat down before the fire, previously to undressing and going to bed. He had not sat long before he imagined he saw the door of the room open, and a little old woman, dressed in a scarlet riding-habit, enter, leaning on a crutch. She advanced toward him, and raising her crutch, gave him a blow with it upon the head. He fell to the ground, and lay a considerable time insensible; but, on recovering his senses, he became conscious that he had had an epileptic fit, and that the little woman was a mere spectral illusion. The daughter of Sir Charles Law, being awake about two o'clock in the morning, saw close to her bed the apparition of a little woman, who told her that she was her deceased mother; that she was happy, and at twelve o'clock that day she should be with her. On receiving this information, the young lady called her maid to bring her clothes; and when she was dressed, she went into her closet, and did not leave it until nine, and then brought with her a sealed letter, addressed to her father, which she delivered to her aunt, the Lady Everard, told her what had happened, and desired that as soon as she was dead it might be sent to him. She requested the chaplain to read prayers to her; and, when these were ended, she took her guitar and psalm-book, and sat down upon a chair, "and played and sung so melodiously and admirably, that her music-master, who was then there, admired at it. And near the stroke of twelve, she rose and sat herself down in a great chair with arms; and fetching a strong breathing or two, expired." In the first of these two cases, the physician was a man of strong mind, and possessed of that knowledge which enabled him to refer the illusion to a temporary physical change in his nervous system, and therefore to disregard it. The lady was a person of delicate frame of body and highly susceptible nervous system, with a corresponding degree of superstitious credulity, which induced her to believe that the illusion was truly a visitation of her deceased mother, the overpowering effect of which upon the

earth.* This expression, repeated more than once in the text, serves to interpret a passage in Pliny, where he speaks of a seat, made of a consecrated stone, and placed in the ancient temple of Hercules at Tyre, from which "the gods arose," or, in other words, from which miraculous apparitions appeared to issue.†

Among a people situated far from Asia, but one of whose colonies occupied a part of the shores of the Euxine, traditions and secrets exist referring to the art of questioning the dead. In the *Hervorar Saga*, we find a Scandinavian poet clothing in exalted poetry the invocations to a warrior killed in battle; the long resistance by which he opposed the demand made to him to yield; the menacing predictions which he uttered, and by which he threatened vengeance for the violence of his death.

An art transmitted by Persia to Italy was not

brain was sufficient to verify the prediction. To the same cause may be referred the well known death of the libertine Lord Lyttleton.

When the derangement of the nerves is of a more permanent nature, it is frequently productive of that description of hypochondriacism which borders upon insanity, but differs from it in the patient not believing in the reality of the spectral phantasms, which are generally also of a different character, not transient visitations, but continued illusions. I was acquainted with a young lady, who imagined that she was constantly attended by a small, black dog, which ran by her side when she walked out, and sat on a table or on a chair, near her, at home. Sir Walter Scott, in his "Demonology," details the case of a gentleman who imagined that a little, smartly dressed fop always attended him in the capacity of a master of ceremonies, and, after some length of time, changed into a skeleton, which always remained near him, night and day. He was sensible both were illusions, but the distressing character and the constancy of the latter, brought on a state of irritative fever, which terminated fatally.

Looking at these conditions of the nervous system, and their results, I have no hesitation in referring to them every tale of apparitions, however well authenticated, ancient or modern.—Ed.

* 1 Samuel, cap. xxviii.

† Plin., *Hist. Nat.*, lib. xxvii., cap. xl.—Eusebius, *Ex eo lapide . . . . . facta sedes, ex quâ Dii facile surgebant.*

likely to remain unknown in Greece; and, at a very early period, we find traces of it there. "Orpheus, inconsolable for the death of Eurydice," resorted to Aornos,* where stood a sanctuary (Nekyomantion) for the invocation of the dead. He was led to imagine that he was followed by the shade of Eurydice; but on turning, and finding himself deceived, he committed suicide.† This historical explanation of the fable of Orpheus reveals to us the curious fact of the existence, in ancient times, of places specially consecrated to the invocations of the dead, and the apparition of spirits.

Sometimes these shades were dumb; but more frequently the engastrimysme, which was employed by the sorceress consulted by Saul, generally furnished them with speech, and enabled them to utter oracles. This conjecture, not easily set aside, throws a new light on the eleventh Book of the Odyssey. There Homer describes the admission of Ulysses, and of him alone,‡ into a Nekyomantion, where he converses with his friends, who have been separated from him by death. An innumerable multitude of apparitions and a terrific noise interrupted this marvelous discourse; and Ulysses retires, dreading lest Proserpine, enraged, might, from the depths of the infernal regions, cause the head of the Gorgon to appear.§ Such was, probably, the method put in practice, in order to

* Aornos was situated in Thesprotia, and was the place of a celebrated oracle, which delivered responses by calling up the dead. But the whole story of Eurydice is properly regarded as a mere allegorical allusion to events connected with the religious observances which Orpheus attempted to establish, and the moral instruction which he taught, in opposition to the Bacchanalian mysteries, and their gross immoralities.—Ed.

† Pausanias, *Bœotic.*, cap. xxx.

‡ *Odyss.*, lib. x., v. 528.

§ *Odyss.*, lib. xi., vers. 631–634.

get rid of the spectators, as soon as their curiosity became embarrassing, or was prolonged beyond the resources for the exhibition.

It is into one of these that Achilles is introduced by Homer, extolling life as the greatest blessing, preferring the most miserable lot of a living man before his own imperishable celebrity.* The inconsistency of the spirit of Achilles with the established character of the intrepid warrior has been severely criticised. As a poetic fiction it may be open to censure, but it is to be admired for its fidelity as a narration. An epoch existed, and it was, in Greece, still recent at the date of the siege of Troy, in which the priesthood, till then commanding exclusively the veneration of men, became indignant, in seeing the warriors crowned with any other titles than those of courage and strength, and those which their battles claimed for them; recognized as the children of divinities, as *demi-gods* and *heroes;* and occupying the admiration and influence which they conceived to be due only to the possessors of the magical art. What doctrines, conveyed by religious revelation, was it their interest to promulgate? Such, undoubtedly, as were best fitted to check the enthusiasm of the warrior. And in Greece, with the refinement of art, they adroitly chose the great soul of Achilles to be the means of communicating that pusillanimous sentiment, which implies that "a living dog is better than a dead lion."† At least two centuries subsequent to the travels of Ulysses, the same lesson was inculcated on the warlike Arabs, in a work evidently emanating from the theocratical school.

The dispute between the censer and the sword appears to have been quite at an end, when Virgil

* *Odyss.*, lib. xi., vers. 486–490.
† *Ecclesiast.*, cap. ix., v. 4.

undertook to tread in the steps of Homer: and the poet would have gratuitously dishonored himself, had he placed in his hero's mouth words opposed to the contempt of death. The sixth Book of the Æneid is a magnificent picture of the most prominent and dramatic scenes of initiation, rather than a description of a Nekyomantion.

From the commencement of its purely historical times, the art of invocation declined in Greece. The last apparition that restored it to notice, was that of Cleonice, who appeared to her murderer Pausanias. Remorse and love drove this prince to a Nekyomantion. There the Psychagogues summoned the shade of Cleonice to appear before him; the ambiguous answer he received from her might be interpreted either as conveying the pardon of Heaven, or the announcement of a violent death to Pausanias, as the just punishment of his crimes.*

Elysius of Therina, having lost an only son, and desirous to invoke the spirit of this beloved child, unexpectedly visited a Psychomantium; but as there was no time to prepare an apparition, bearing the resemblance to the object of his affection, the bereaved father was obliged to rest satisfied with an oracle which declared death to be the greatest boon.†

We should be in error were we to conclude from this fact, that the art had perished in Italy: when Cicero wrote, it still existed in Rome; and that author, in several places, speaks of experiments in Psychomantics, to which his cotemporary Appius was greatly addicted.‡ Two centu-

* Pausanias, *Laconic.*, cap. xvii.—Plutarch, *De sera numinum Vindictâ.*

† Cicer., *Tuscul. Quæst.*, lib. i., cap. xlii.—Plutarch, *De Consolatione.*

‡ Cicer., *De divinat.*, lib. i., cap. lviii.—*Tuscul. Quæst.*, lib. i., cap. xvi. et xlviii.

ries later Caracalla invoked the shades of Commodus and of Severus.*

One cause, however, effectually operated to prevent the people from frequenting the Nekyomantions: namely, the terrible consequences which sometimes arose from these apparitions. Those that applied for them were not always mere restless, inquisitive men, eager to dive into the secrets of futurity; they were more frequently persons like Orpheus or Elysius—beings full of love, and deprived by death of the object that had engaged their fondest affections. Thus the faithful wife of Protesilaus, importuning the gods to grant her, but for one moment, to behold again her husband who had fallen on the shores of Troy, no sooner saw his spirit, than, without hesitation, she endeavored to follow him by precipitating herself into the flames, and was destroyed. These apparitions acting on broken hearts and exalted imaginations at a crisis of grief, the sensitive being fled to death as the greatest blessing, and with a strong conviction that death would afford a reunion with the dearer and better part of itself.

Nothing was more calculated to aid such a belief than the apparition, which, in restoring for an instant the semblance, seemed to point out the road by which fondly remembered felicity might be regained.

Disuse, however, although it threw into oblivion, yet did not annihilate the secret of invoking apparitions. In the second century, St. Justin mentions invocations of the dead, as a fact which no one thought of doubting.†

* Xiphilin, in *Caracallâ*.—Dion., lib. lxxvii.

† St. Justin, *Apologet.*, lib. ii. St. Justin, called the Philosopher, was born at Neapolis, the ancient capital of Samaria, early in the second century. He was educated in all the errors and superstitions of Paganism; but after seeking for truth in the schools,

Lactantius,* in the third century, still more positively represents the magicians as always prepared to convince the skeptical by apparitions of the dead.† In the ninth century, the Emperor Basil, the Macedonian, inconsolable for the death of his son, had recourse to the prayers of a pontiff already celebrated for the power of working apparent miracles.‡ An image of this dear son, magnificently appareled and mounted on a superb horse, was made to appear before him; but the spectral son, advancing toward him, disappeared, in the act of rushing into his father's arms. To explain this historical extract, it is requisite to admit the improbable supposition, that a horseman was appointed to play the part of the young prince, as the resemblance must have been perfect; and would not the father have seized, held, and folded him in his

he was converted to Christianity by an old man he met accidentally on the sea-shore; and he soon afterward went to Rome. His previous education had conferred upon him the powers of elocution, in an eminent degree; and he employed it assiduously in promoting and defending the faith he had adopted. Justin left Rome, but returned; when he was arrested and carried before Rusticus, the Roman prefect, who, after endeavoring to persuade him and his companions to renounce Christianity, and return to the worship of the gods, and finding them immovable, condemned them to be scourged, and then beheaded; a sentence which was immediately executed. St. Justin's martyrdom occurred in A.D. 164. He wrote two works in support of Christianity, which he termed "Apologies;" the first was addressed to the Emperor Antoninus, the second to Marcus Aurelius.—ED.

* Cæcilius Ferminius Lactantius was, in his youth, a disciple of Anobeus, at Sicca in Africa, and celebrated as a Latin orator. In 317, when an old man, he was appointed preceptor to Crispus Cæsar, the son of Constantine the Great; and in the execution of that trust, he nearly fell a victim to a false accusation of the Empress Fausta, that he had made an attempt upon her chastity. He early became a convert to the Christian faith; and, on account of his eloquence, was called the "Christian Tully." He outlived his royal pupil, and died at Triers.—ED.

† Lactant., *Div. institut.*, lib. vii., cap. xiii.

‡ Theodore Santabaren, Abbot-Archbishop of Euchaites. See Glycus, *Annal.*, part iv., p. 296.—Leo Grammat. in *Vitâ Basilii imp.*, § 20.

embrace? And would not the false nature of the apparition have been discovered and denounced by the enemies of the Thaumaturgists,* on the knowledge of the existence of the man; and would not the remarkable resemblance, which made him of use on this occasion, have afterward discovered him?†

Connecting this fact with earlier traditions, and particularly with the very ancient writers on the Nekyomantions, is it not more consistent with probability, to acknowledge that in our own days the phantasmagoria has been only restored, not invented,‡ and to trace many of the apparitions of the gods, and the invocations of the dead, to its deceptions;§ especially when we read of shades, en-

* The resemblance of a woman named Oliva, to the Queen Marie Antoinette, aided, in 1785, the intrigue known by the name of the *Procès du Collier.* But Oliva was soon arrested and tried. The substitute for the son of the Greek emperor would have been seized in like manner, by the rivals of Santabaren: for envy is as clever and active as a police, especially at court.

† Sir David Brewster has explained the mode in which this apparition was produced, by means of two concave mirrors reflecting the image of a picture of the emperor's son on horseback, as if in the air. As the picture was approached toward the first mirror, the image appeared to advance into the father's arms; when it was withdrawn, it of course eluded his grasp.—Ed. See *Letters on Natural Magic*, p. 68.

‡ See in the *Souvenirs d'un homme de cour*, tome i., pp. 324–329, the account of a phantasmagoric apparition, which dates about the middle of the eighteenth century. It consisted particularly in giving the appearance of life and motion to figures on tapestry.

§ Pythagoras taught that the spirits of the dead do not wink with their eyes. The assertion is just, says our author; as this movement would be difficult to manage with a phantasmagoric apparition. But the editor must remark that it is not so difficult; and that it was executed to the life in the exhibition of M. Philipstal.

The phantasmagoria brought out in London in 1802, by M. Philipstal, produced the most impressive, and, in some instances, terrific effects upon the audiences who thronged to witness the exhibition. The theater was in profound darkness, and the stage, which represented a cavern with terrible figures and skeletons displayed in relief upon its walls, was dimly seen through a gauze

dowed with a striking resemblance to the beings or images they represent, suddenly vanishing from the embrace that would retain them?

We might borrow from P. Kircher* a description of the instruments which probably formed the phantasmagorias of the ancient temples: but it will be more curious to display their effects as they have been described by a disciple of the philosophical Theurgists. "In a manifestation which must not be revealed . . . . there appeared on the wall of the temple a diffusive mass of light, which, in becoming concentrated, assumed the appearance of a face evidently divine and supernatural, severe of aspect, but with a touch of gentleness, and very beautiful to look upon. According to the dictation of their mysterious religion, the Alexandrians

screen, invisible to the audience, and upon which all the spectral appearances were represented; and through which lightnings flashed, while thunder, intended to prepare the mind for the terrific exhibition, rolled over the heads of the spectators. The figures thrown upon this screen were reflected from a concave mirror, through double lenses, constituting the well known magic lantern; but modified in such a manner that they appeared to advance and recede; to dilate to a gigantic magnitude, and then immediately diminish to the size of pigmies; to come forward with all the appearance of real life, and on retiring, instantly to return in the form of skeletons. Terrific heads, moving their awful eyes and tremendous jaws, seemed close to the spectators' eyes, then suddenly vanished; and were succeeded by specters and skeletons of the most frightful aspect. The writer of this note saw this phantasmagoria, and can easily conceive the effect which it is fitted to produce, when skillfully worked, upon ignorant and superstitious spectators. If we can suppose that the ancients were acquainted with the influence of the combination of mirrors and lenses, which admits of living objects instead of pictures being employed, as described in "*Brewster's Natural Magic*," p. 86, the representations of gods, and the apparitions of the dead, appearing at the command of magicians and of priests in the sanctuaries, may be readily and satisfactorily explained. An excellent account of an exhibition of demons, conjured up by a Sicilian priest, is given in the words of Benvenuto Cellini, who witnessed it, in Roscoe's life of that celebrated artist. —ED.

* Kircher, *Œdipus*, tome ii., p. 323.

honored it as Osiris and Adonis."* In describing a modern phantasmagoria, how could it be differently set forth?

Damascius† informs us, that this apparition was employed to prevent the rulers of the city from giving way to hurtful dissensions. The miracle had a political aim; indeed, we may discover the same object in many of the anciently recorded miracles; and even presume the existence of the same cause in nearly all of them.

The camera obscura served, in other cases, to reproduce moving and animated pictures. Here, the remark regarding the diorama applies with greater force; namely, that simple observation serves to indicate its use. If the window of a room is closed by a tightly fitting shutter, and a hole be made in it, the men, the animals, the passing carts, and all moving objects, are seen clearly depicted on the ceiling; when sufficiently illuminated, the color of the exterior objects, if at all bright, are perfectly recognizable in the picture; and even the images, as I have seen, preserve a very striking resemblance both in the details and as a whole, even when in proportion to the original objects the dimensions are only as one in twelve or fifteen.

That, in ancient times, these apparitions were the result of scientific means‡ is proved by the fact,

* Damascius apud *Photium Biblioth.*, cod. 242.

† Damascius was a stoic philosopher of Damascus, who wrote four books of extraordinary events which occurred in the age of Justinian.—ED.

‡ Nothing, in my opinion, can be more unworthy of human reason, than the belief of the power of any class of men, good or evil, to recall the immortal essence of our being, after it has quitted its mortal vestment, and with a visible form, similar to that from which it has been forever separated. If this opinion be correct, every spectral apparition, every ghost which has rendered midnight hideous, every warning of supernatural voices that has fallen upon the ear of shuddering guilt, and every sound that has awakened the smitten conscience of the murderer, must alike be

that, by the aid of a convex lens, or concave mirrors, the Thaumaturgists were acquainted with the art of restoring an inverted image to its proper position. According to Theodoretus and the Rabbins, the cause of the terror which seized, or was feigned by, the sorcerers consulted by Saul, was owing to the shade of Samuel appearing in an upright posture; while till then the attitude of the spirits had been reversed.*

regarded as illusions of the mind, raised by extraneous circumstances acting upon a deranged nervous system, so morbidly excitable, that creative Fancy is set to work, and gives to aerial nothings a corporeal presence and a form. These spectral illusions, whatever appearance they may assume, are usually conjoined with, or productive of, some prediction, which, if not fulfilled, is forgotten; but if, by any coincidence, it should apparently be fulfilled, the mind becomes more strongly convinced of the truth of supernatural agency, and the empire of superstition and credulity gains an accession of power. The apparitions of the ancients, therefore, as we have no reason for doubting the accounts of them which have been transmitted by historians, must have assuredly been impostures, produced in the manner afterward detailed in the text.—Ed.

* Theodoret., in *Reg.*, lib. i., quæst. lxii. Theodoretus, a theodoretus of the fourth century, was born in A.D. 393, and educated under Theodore of Mapsuestia and John Chrysostom. He became a deacon in the church at Antioch, and in 423 was chosen Bishop of Cyrus, in Syria. The greater part of his life was occupied with the controversy carried on between the *Nestorians* and the Oriental Christians, or *Eutychians*. He died in 457.

There is, however, no necessity for this supposition of Theocritus and the Rabbins; for it is probable that the figure of Samuel did not appear at all, at least it was not seen by Saul; and if the witch could have produced it by her science, there would have been no cause of alarm on her part. Her dread arose from the fear of punishment from Saul. When the apparitions spoke, the deception was probably the effect of ventriloquism; for that ventriloquism was employed by the ancient sorcerers may be inferred from the fact that it at this day forms a part of the performances of the Esquimaux wizards. Captain Lyons details the performances of one of his Iglolik acquaintances, named Toolemak, in the darkened cabin of his ship. The wife of Toolemak sung the Annaaya during the whole performance. The first imitation was that of the invocations of the spirit Tronga, when a loud snorting, resembling that of the walrus, was heard; then the voice seemed smothered, and retreated beneath the deck, as if to a distance, when it ceased altogether. His wife said he had

Buffon allows the possibility of the existence of the steel or polished iron mirrors, placed in the port of Alexandria for the purpose of discovering vessels at a great distance off at sea. It may be presumed, that long before falling into the service of industry, the sciences which suggested the construction of the mirrors of Alexandria were preserved in the temples: and apparent miracles, far superior to those we have just noticed, must have awakened the admiration of the people, and filled even the philosophers with astonishment.*

"If this mirror," says Buffon, "really existed, as it seems probable that it did, to the ancients belong the honor of the invention of the telescope." May we be permitted to add to this weighty authority, one of a very different nature. In those ancient tales of the East, whose details of miracles we conceive to have been founded on disfigured traditions, rather than to have been the inventions of a roving imagination, we find a tube spoken of, which was a foot long, and little more than an inch in diameter, and at one extremity furnished with a glass. By the application of the eye to one

dived, in order to bring up Tronga, and in half-a-minute was heard distant blowing, very slowly approaching, and a voice mingled with the blowing, until both the voice and blowing became quite distinct; and the old woman said Tronga was come to answer any questions put to him by the captain. He asked some questions, which were answered by two loud claps on the deck. A hollow voice next chanted, and was succeeded by a strange jumble of hisses, groans, shouts, and gabbling, like a turkey. The voice then gradually sunk from hearing, and was succeeded by a sound not unlike the wind on the bass chord of an Æolian harp, which "soon changed to a rapid hiss, like that of a rocket, and Toolemak, with a yell, announced his return." When the light was admitted, the ventriloquist was apparently much exhausted by his performance, "which had continued for at least half-an-hour." —Ed.—*Private Journal* of Captain G. F. Lyons. Lond., 1824, p. 358.

* Buffon, *Histoire naturelle des minéraux. Introduction, sixième mémoire*, art. ii.

end of this tube, a person saw every thing he desired.* Let us substitute for this, the apparent miracle of perceiving an object lost to the naked eye by its distance; and the magic instrument becomes an opera-glass, if not a telescope.

May we not refer to a knowledge of the refraction of light, an extraordinary faculty, of which the writers of different ages and countries have spoken, in order to assure ourselves that they have not copied from one another?

Thus, as we are told, Jupiter, in love, transformed himself, alternately, into an image of Diana and of Amphytrion; and Proteus and Vertumnus could change their forms and aspects at will. These are dazzling mythological fictions, the brilliancy of which conceals their absurdity. But when a biographer relates that, under a borrowed appearance, his hero deceives even his friends, he becomes ridiculous, because the excessive credulity into which his enthusiasm has betrayed him appears; and the relation of several such adventures would only be met with skepticism. We do not speak, however, of an isolated fact, but of a universal art. "The end of magic," says Iamblichus, "is not to create beings, but to cause images resembling them to appear and soon again to vanish, without leaving the slightest trace behind them."†

Among the conquests of Genghis Khan‡ was a town, the mart for all the commerce of China. "The inhabitants," says the historian,§ "were

* *Mille et une Nuits*, 606e nuit, tome v., pp. 254–256, etc.

† "*Ejus-modi namque magicæ finis est, non facere simpliciter, sed usque ad apparentiam imaginamenta porrigere, quorum mox nec vola, quod dicitur, compareat, nec vestigium.*" (Iamblichus, *De Myst.*)

‡ Genghis Khan flourished in the end of the sixth and the beginning of the seventh centuries.—Ed.

§ *Histoire de Genghis Khan*, pp. 471, 472.

versed in an art which could cause that which is not to appear, and that which really is to disappear." "Men," says Suidas,* "who were called Magi (magicians), knew how to surround themselves with delusive apparitions." His translator adds, by way of explanation, "who so deceived the eyes of men, by their miracles, as to appear utterly different from what they really were." Saxo Grammaticus,† who, beside the Greek and Latin authors now lost to us, consulted the traditions imported with the religion of Odin from Asia into the north of Europe, speaking of the illusions produced by the scientific magicians, says: "Very expert in optical delusions, they succeeded in giving to themselves and others the appearance of various objects, and, under attractive forms, to conceal their real aspect."‡

John of Salisbury,§ who doubtless had access to sources no longer open to us, relates that "Mercurius,‖ the most skillful of the magicians, had discovered the secret of fascinating the eyes of men in such a manner as to render persons invisible, or rather to give them the appearance of beings of a different species."¶

Simon, the magician,** could also make another

* Suidas, *Verbo Magos.*

† A Danish author of the twelfth century, who wrote a history of Denmark, of mixed authority.—Ed.

‡ Saxo Grammat., *Hist. Dan.*, lib. i., cap. ix.

§ He lived in the reign of Henry VII.; and although that period was ranked among the dark ages, yet John of Salisbury was a man of learning, and well versed in the Greek and Latin languages, mathematics, and every branch of natural knowledge then known. His principal work is entitled, "*Polycraticon.*"—Ed.

‖ Trismegistus Mercurius, or Hermes, one of the Egyptian Magi, who was a cotemporary of Moses, when he led the children of Israel from Egypt.—Ed.

¶ Joan. Salisb., *Policr.*, lib. i., cap. ix.

** Simon Magus was a Samaritan by birth, a pagan, and addicted to sorcery. He nevertheless pretended to believe in Chris-

man resemble him so exactly, as to deceive every one. An ocular witness, the author of the "Recognitions," ascribed to Pope Saint Clement, relates this incredible story.*

Pomponius Mela attributes to the Druidical priestesses of the island of Sena the art of transforming themselves into animals at will;† and Solinus‡ regards the enchantments of Circe as delusive apparitions.

Eustathius§ enters into important details. In Homer, Proteus transforms himself into a consuming fire. "This," says the commentator,‖ "must be understood as a mere apparition; thus Proteus becomes a dragon, a lion, a boar, &c., not really changing, but only appearing to be so." Proteus was a very learned, very versatile, and very adroit worker of miracles (Terasios), and was acquainted with the secrets of Egyptian philosophy. After having noticed Mercury, and other beings connected with the mythology, and who, by an apparent metamorphosis, passed, like Proteus, from one form to another, Eustathius continues: "Cratisthenes has been admired for the same art: he

tianity, and was baptized by Philip, the deacon; but when Peter and John went to Samaria, he offered them money to bestow upon him the same power which they possessed. Peter sharply rebuked him, and refused his request, saying, "Thy money perish with thee, because thou hast thought that the gift of God may be purchased with money." (*Acts*, chap. vii., v. 20.) He was one of the earliest supporters of the Gnostic system, addicted to abominable vices, and one of the principal opponents of Christianity.—Ed.

* *Recognit.*, lib. x.—*Epitome de rebus gestis*, B. Petri.

† Pompon. Mela, lib. iii., cap. vi.

‡ Solin., cap. viii.

§ Eustathius was Archbishop of Thessalonica in the twelfth century, under the emperors Manuel Alexius and Andronicus Comnenus. He was a man of great erudition, and wrote a celebrated commentary on Homer, and on Dionysius the geographer. —Ed.

‖ Eustath. in *Homer Odyss.*, lib. iv., v. 417, 418.

created an appearance of flames which seemed to issue from him, and to display a peculiar motion. He also contrived other apparitions, by which he forced men to confess their thoughts to him. Such also were Xenophon, Scymnos, Phillipide, Heraclidus, and Nymphodorus, who forced men to obey their wills by inspiring them with dread."

Athenæus* speaks in similar terms of Cratisthenes and of Xenophon, who appeared to create flames; and of Nymphodorus: all three skillful in deceiving men by apparent miracles, and terrifying them by apparitions.†

What, we may inquire, were these apparitions? The term has no equivocal meaning; for the commentator proposes to prove, that the pretended metamorphoses of Proteus‡ are to be considered as apparitions; it was therefore necessary that the enchanters should themselves appear clothed in the forms with which they alarmed the spectators.

But let us remark that, in asserting their possession of this talent, neither Eustathius nor Athenæus describe Cratisthenes or Xenophon as being endowed with supernatural power; both of these, as well as Proteus, are mentioned only as skillful adepts in deception.

In another age, and in another hemisphere, we hear of a similar apparent miracle. It is mentioned by Joseph Acosta, who, toward the end of the sixteenth century, resided in Peru: he affirms that there existed at that epoch sorcerers who possessed the power of taking any form they pleased.

* Athenæus, *Deipnosoph.*, lib. i., cap. xiv.

† Some idea of the manner in which this was performed is given in a subsequent note.—Ed.

‡ A Greek, a native of Nancratis, in Lower Egypt, who lived in the third century. His work entitled "*Deipnosophista*" is a very curious performance, treating chiefly of the pleasures of the table, and illustrating ancient art.—Ed.

He relates that the ruler of a city in Mexico, who was sent for by the predecessor of Montezuma, transformed himself, before the eyes of the men who went successively to seize him, into an eagle, a tiger, and an immense serpent. At last he yielded, and was conducted to the emperor, who condemned him to death.* No longer in his own house, and no longer within his own theater, he then lacked the power of working miracles in order to save his life.

The Bishop of Chiapa (a province of Guatimala), in a writing published in 1702, ascribed the same power to the Naguals, or national priests, who labored to win back to the religion of their ancestors the children brought up as Christians by the government. After various ceremonies, when the child he instructed advanced to embrace him, the Nagual suddenly assumed a frightful aspect; and, under the form of a lion or tiger, appeared chained to the young Christian convert.†

It may be observed, that these apparent miracles, like those of the Mexican enchanters, were performed in a place previously chosen and adapted to the purpose: they prove, therefore, simply a local power; they indicate the existence of a mechanical art; but they do not lead to an acquaintance with its resources.

May not the fire, with which, after the example of Proteus, Cratisthenes and Xenophon enveloped themselves, have served to conceal some other operation?

It is well known that the ancients often thought they could perceive objects of a determinate figure

* Joseph Acosta, *Histoire Naturelle des Indes, &c.*, feuillets 251 et 351–358.

† *Recueil de Voyages et de Mémoires, publié par la Société de Géographie*, tome ii., p. 182.

in the midst of a body of flame. The vapor of burning sulphur, and the light of a lamp fed by a particular unctuous substance, were made use of by Anaxilaus of Larissa* to work various apparent miracles, which are referable not so much to magic, as to real experiments in physics.†

A modern wizard,‡ in the revelation of his secrets, allows the possibility of producing an apparition in smoke. The Theurgists caused the appearance of the gods in the air, in the midst of gaseous vapors, disengaged from fire.§ Porphyrus admires this secret; Iamblichus|| censures the employment of it; but he confesses its existence, and grants it to be worthy the attention of the inquirer after truth. The Theurgist Maximus undoubtedly made use of a secret analogous to this, when, in the fumes of the incense which he burned before the statue of Hecate, the image was seen to laugh so naturally as to fill the spectators with terror.¶

Such illusions, supposing there were ever any thing real in them, may have been managed by the magician who had previously surrounded himself with apparent flames. But we will not dwell on doubtful probabilities, nor attempt to explain what we can scarcely regard as credible. Our aim has been merely to excite reflection on narrations which refer the same apparent miracle to many different places. They prove, at least, that in employing

* Anaxilaus was banished from Italy by Augustus on account of his impostures.—Ed.

† Plin., *Hist. Nat.*, lib. xxviii., cap. ii., xxxii., 52, lib. xxxv., cap. xv. Anaxilaus had composed a book quoted by Saint Ireneus and Saint Epiphanes, and entitled παίγνια (*Jeux, Enfantillages*).

‡ These illusions were evidently produced by concave mirrors, as explained in a former note. They required the aerial, reflected images to be thrown into the midst of smoke.—Ed.

§ Robertson, *Mémoires, &c.*, tome i., p. 354.

|| Iamblichus, *De mysteriis*, cap. xxix.

¶ Eunap. in *Maximo*.

either science or subtilty, the Thaumaturgists had carried out the art of optical deception far enough to raise an exaggerated, or rather an absurd idea of their power. Indeed we may conclude that they were acquainted with wire-gauze; as we are told in the fable of Vulcan, that he made an iron net as delicate as a spider's web, in order to expose the infidelity of his wife with Mars. May we not, therefore, conjecture that they might have used wire-gauze on the same principle as did Sir H. Davy.*

* If we admit that the ancients possessed a knowledge of many extraordinary inventions, which have been regarded as altogether modern, we may suppose that the knowledge of non-conducting substances, and of substances such as wire-gauze, through which flame can not pass, the foundation of Sir H. Davy's safety-lamp was not unknown to them. The Chevalier Aldini, early in this century, invented an incombustible dress, by means of which firemen can proceed with impunity into the midst of flames. The body, arms, and leg-pieces, are made of strong cloth, steeped in a saturated solution of alum, while the cap, which covers the whole head and neck, and is perforated only with openings for the eyes, nostrils, and mouth, and the gloves and shoes, are made of cloth of asbestos. Over this dress is placed another, made of iron-wire gauze, consisting of a casque, or cap, and mask, large enough to leave a space between it and the asbestos cap; a cuirass, with brassets; armor for the trunk and the thighs; and a pair of double boots. There is also an oval shield, made of the wire-gauze, stretched on a slender frame of iron.

Many experiments were made to prove the efficacy of this apparatus. Among others, two parallel rows of straw and brushwood, supported by iron wires, extending thirty feet, were placed three feet apart, and then set on fire. The heat was sufficient to prevent any one from approaching nearer than eight or ten yards from the fire. Six firemen, however, habited in the above dresses, marched repeatedly, to and fro, through the whole length of the double row of flames, uninjured. They breathed without difficulty in the midst of the flames, so completely was the heat of the air which entered their lungs interrupted by the wire-gauze cap. In another experiment, a fireman remained so long enveloped in flames and smoke, which rendered him invisible, that doubts were entertained of his safety; but he issued from them uninjured.—Ed.

CHAPTER XIV.

Hydrostatics.—Miraculous Fountain of Andros.—Tomb of Belus.—Statues that shed Tears.—Perpetual Lamps.—Chemistry.—Liquids changing color.—Condensed Blood becoming Liquid.—Inflammable Liquid.—The Art of distilling Alcoholic Liquors was formerly known even beyond the Temples.

MEANS yet more simple and more easily exposed than those already noticed here, served to give the phenomena of occult science the appearance of miracles. In the island of Andros* was a fountain esteemed miraculous, from its discharging wine for seven days, and water only during the rest of the year.† An elementary acquaintance with hydrostatics, and the effects of the pressure of fluids, serves to explain this apparent miracle, as well as that connected with another fountain at Rome, which, on the return of Augustus to the city, after the war in Sicily, flowed with oil‡ during an entire day. Another apparent miracle was performed every year at the feast of Bacchus, in a town of Elis:§ three empty urns, that were closed in pres-

* Andros was an island in the Ægean sea, in the capital of which, called also Andros, was a temple of Bacchus, and the above celebrated fountain. The apparent miracle was performed during the ides of January.—ED.

† Plin., *Hist. Nat.*, lib. ii., cap. ciii.

‡ Paul Orose, who relates this prodigy, believes it to be a prophetic emblem of the birth of Christ, under the empire of Augustus. We think that this fact was not in its commencement exhibited as a miracle; credulity allowed itself, subsequently, to be deceived by the figurative expressions made use of by cotemporary writers, to celebrate the return of the conqueror. Fountains of wine, in these latter days, have flowed in our own market-places, on the occasions of public rejoicings.

§ The capital of a country in Greece, where the Olympic games were celebrated on the banks of the Alpheus. It was celebrated for a temple of Venus, and a statue of the goddess made of gold and ivory, with the feet resting on a tortoise, the work of Phidias.—ED.

ence of the strangers attracted in crowds to this spectacle, on being reopened, were found to have filled themselves with wine.* A more striking exhibition might have been obtained, by employing the machine to which we give the name of the Fountain of Hero (although, in all probability, it was not invented, but simply described, by that mathematician), as the water poured into the reservoir before the eyes of the spectators would seem to have issued from it in the form of wine.

It is believed, with much probability, that the representation of the infernal regions, as they were conceived by the Greeks, formed a part of the celebration of the mysteries. The curious punishment of the Danaides† must then have been displayed to the initiated, and history has indicated the manner in which this was managed. Xerxes caused the monument of Belus‡ to be opened. The body of this prince lay in a glass coffin, nearly

* Athenæ., *Deipnosoph.*, lib. i., cap. xxx.—Pausanias, *Eliac.*, lib. ii., cap. xxvi.

† The daughters of Danaus, King of Argos, who, with the exception of one, namely, Hypermnestra, destroyed their husbands in the first night of their nuptials, at the suggestion of their father; because an oracle had foretold his death, by the hands of one of his sons-in-law, all of whom were his nephews. Hypermnestra was tried for her disobedience, in favoring the escape of her husband, Lynceus, but acquitted by the unanimous voice of the people. Her sisters were purified from the murder by Mercury and Minerva, at the command of Jupiter; but condemned at death to eternal labor, in the regions of Pluto, by attempting to fill with water a vessel full of holes, so that the water ran out as soon as it was poured into it.—Ed.

‡ Belus, who was one of the ancient kings of Babylon, reigned about eighteen hundred years before Semiramis, and was deified at his death. His temple is stated to have been originally the tower of Babel: Xerxes plundered and demolished it. Among other curious relics, beside the coffin, were several statues of gold, one of which was forty feet high. The cause of the permanent level of the oil in the coffin must have been discovered when the temple was destroyed; but it nevertheless, in the mean time, deluded the ignorant, and passed for a miracle.—Ed.

filled with oil, and bearing an inscription on the side of it, which conveyed the following warning: "Woe, woe to him, who, having opened this tomb, shall neglect to fill the coffin!" Xerxes gave immediate orders to fill it up with oil; but, however great the quantity poured in, it was impossible to fill it. This phenomenon was regarded as the presage of those disasters which darkened, and finally terminated, the life of Xerxes.* Hidden from notice by the position of the corpse, or by some less remarkable obstacle, was a tube, by which the coffin communicated with a reservoir of oil, owing to which that in the coffin was always kept at the same height; and the mouth of the tube, opening at that point, carried off the surplus, and thus prevented the coffin from becoming full.

Formerly, the perspiration, or sweating of statues, which arose from the drops of water deposited upon them by the atmosphere saturated with aqueous vapor, which resolved itself into liquid on coming into contact with these cold dense bodies, was superstitiously regarded as really miraculous. Such a metamorphosis in our times, in damp weather and moist climates, is too frequently renewed to be turned to much account. But historians and poets unite in the assertion, that the statues of heroes and images of gods have both perspired and also have shed visible tears, the certain presages of calamities about to descend on their fellow-citizens or worshipers. The determination of the czar, Peter the Great, put an end to a pretended miracle of this kind at St. Petersburg. An image of the Blessed Virgin, painted on wood, wept abundantly, in order, so it was given out, to testify her abhorrence of the reforms projected by the czar.

* Ctesias in *Persicis.*—Ælian, *Variar. Hist.*, lib. xiii., cap. iii.

Peter himself discovered and exposed to the people the mechanism by which the fraud was managed. A reservoir, filled with oil, was concealed between the two panels of which the picture consisted, from which the oil, thinned by the heat of the multitude of tapers lighted up around the image, was conveyed by conduits, and found its way through small holes at the angles of the eyes, thus representing tears as it filtered.* All the miracles of weeping statues, &c., are referable to similar artifices; and to the same source we may trace another of a somewhat different nature, related by Gregory of Tours. This historian saw, in a monastery at Poitiers, a lamp lighted before a fragment of the true cross, the oil of which miraculously overflowed, and in the space of an hour poured out a quantity equal to that contained in the reservoir. Indeed the rapidity of its rising increased in proportion to the incredulity at first displayed by the spectator.†

The learned of the sixteenth century have so often spoken of perpetual lamps, and the students of natural philosophy have so ardently sought to revive the secret, that we might suppose their credulity to be founded on, and the perseverance of their attempts to be sustained by, some tradition. For the realization of this seeming miracle, the fulfillment of two apparently impossible conditions was necessary. In the first place, it was necessary to provide an inexhaustible aliment for combustion; and in the second, to furnish an inconsumable wick for the combustion of this aliment. Recollecting the miracle at the tomb of Belus, the mystery is easily detected. At some

* Lévêque, *Histoire de Russie* (eleventh edition), tome v., pp. 161, 162.

† Greg. Turon., *Miracul.*, lib. i., cap. v.

hidden point, let a tube be placed by which the lamp may communicate with a secret reservoir, so large that the consumption of one, or even of several days, will but little alter its level: thus, the first part of the problem is resolved. The second disappears before the common invention of the present period, namely, that of lamps without wicks,* an invention resulting from the same cause as the two last miracles we have cited, the dilatation of oil by heat. In the precaution of filling the concealed reservoir with regularity, there could be nothing embarrassing; and as to any perplexity from the necessity, in case of accident, of changing the tube at the orifice of which the expanded oil was inflamed, the wonder-worker was skillful enough, while giving it his own attention, to distract that of the spectators from his operations for a few moments.†

The agency of heat, in the expansion of oil or any other liquid, belongs to another science than hydrostatics; thus, we are naturally led to examine what was the extent, or rather how much, we can trace of those pretended miracles, for which the ancients were indebted to a practical knowledge of chemistry.

Passing to more elevated ideas, we may recall the example of Asclepiodotus,‡ who chemically

* These lamps serve for night-lamps; but care is necessary to clean the tube frequently, otherwise they are liable to be extinguished. This inconvenience was not experienced where the lamp was to burn without interruption; the tube becomes obstructed, only because the oil, partly decomposed, attaches itself to the sides of the tube, when the night-lamp is extinguished in the morning.

† There is no necessity for explaining the above described phenomenon by the great expansion of oil, for a wick of asbestos would, although incombustible, yet be fully adequate to raise the oil, and keep up the flame as long as the lamp was duly fed with the combustible fluid.—Ed.

‡ A general of Mithridates.—Ed.

reproduced the deleterious exhalations of a sacred grotto,* which proves that a science so prolific of apparent miracles was not unknown in the temples. Other facts tend to confirm this opinion. Marcos, the leader of one of those sects, which, in the earlier ages of the Church, endeavored to amalgamate with Christian doctrines particular dogmas and rites of initiation, filled three cups of transparent glass with colorless wine; during his prayer, the fluid in one of these cups became *blood-red*, in another *purple*, and in the third, of an *azure blue*.† At a later period, a well might be seen, in an Egyptian church, the waters of which, whenever they were placed in a lamp, became of a sanguine color.‡

In addition to these seeming miracles, probably borrowed from the mysteries of some ancient temple, let us add one of later times. At the court of the Duke of Brunswick, Professor Beyruss promised that, during dinner, his coat should become red; and, to the amazement of the prince and his other guests, it actually became of that color.§ M. Vogel, who relates the fact, does not reveal the secret made use of by Beyruss; but he observes that, by pouring limewater on the juice of the beet-root, a colorless liquid is obtained; and that a piece of cloth, steeped in this liquid and quickly dried, becomes red in a few hours, simply by contact with the air; and further, that the effect is accelerated in an apartment where champagne and other wines are

* *Dissertation de* M. Virey, *Journal de Pharmacie*, chap. viii., p. 153.

† St. Epiphan., *contrà Haeres*, lib. i., tome iii., *contrà* Marcosios, *Haer*. 24. Sainte Croix has inadvertently ascribed this miracle to the Pepuzziens.—*Recherches sur les Mystères du Paganisme*, tome ii., pp. 190, 191.

‡ Macrizy, quoted by Et. Quatremère.—*Mémoires sur l'Egypte*, tome i., p. 449.

§ *Journal de Pharmacie*, tome iv., (Février, 1818) pp. 57, 58.

being plentifully poured out.* It has been proved, by recent experiments, that wool dyed by orchil† of a violet color, or stained blue by the acidulated sulphate of indigo, in a bath of hydro-sulphuric acid, becomes colorless, yet resumes the blue or the violet color on exposure to the free air.‡ Either explanation applies to the modern fact, and indicates the possibility of reviving ancient prodigies: it also discovers the manner in which, amid flaming torches and smoking incense, in the sanctuaries of Polytheism, the veil concealing the sacred things may have been seen to change from white to a deep blood-red hue, and which spectacle was considered as the presage of frightful disasters.

Blood boiling on the altars, or upon the marbles, or in the vases of the temple, was also indicative of peril and calamity. In Provence, in the sixteenth century, when a consecrated vial, filled with the blood of St. Magdalene, in a solid state, was placed near her pretended head, the blood became liquid, and suddenly boiled.§ The same phenomenon was exhibited in the cathedral of Avellino, with the blood of St. Lawrence,|| and

* In this case, the lime, which, in its pure or alkaline state, unites with the acid of the juice of the beet-root and decolorizes it, attracts carbonic acid from the air, which converts it into carbonate of lime, so that the acid of the beet being again set free, aided by any excess of the carbonic acid, acts upon the coloring matter, and restores the color. The quantity of carbonic acid extricated by the breathing of many persons in a crowded room, and evolved by the champagne, would greatly facilitate this change.—Ed.

† A dye-stuff made from a species of lichen named rocella *tinctoria*.—Ed.

‡ *Académie des Sciences*, séance du 2 Janvier, 1837.

§ Longueruana, tome i., p. 162.

|| *Travels of Swinburn*, vol. i., p. 81.—St. Lawrence Scopali was a native of Otranta. He was forty years of age before he was admitted into holy orders. He became an ardent preacher, and among other works, published "The Spiritual Combat," a production of considerable merit, twenty years before his death, which happened in 1610, in his eightieth year.—Ed.

also at Bisseglia, with that of St. Pantaleon,* and of two other martyrs.† In the present day, at an annual public ceremony at Naples, some of the blood of St. Januarius,‡ collected and dried centuries ago, becomes spontaneously liquefied, and rises in a boiling state to the top of the vial that incloses it. These phenomena may be produced by reddening sulphuric ether with orcanette (*Onosma*, Linn.), and mixing the tincture with spermaceti. This preparation, at ten degrees above the freezing point (*centigrade*), remains condensed, but melts and boils at twenty. To raise it to this temperature, it is only necessary to hold the vial which contains it in the hand for some time. If a little simple jugglery be combined with this philosophical experiment, the apparent miracle is com-

* St. Pantaleon was physician to the Emperor Maximianus: he fell into idolatry, but was rescued from it, and afterward ardently desired to expiate his crime by martyrdom, a wish which was granted to him, in the barbarous persecution of the Christians by Dioclesian.—Ed.

† *Travels of Swinburn*, vol. i., p. 165.

‡ St. Januarius was a native of Naples; he became Bishop of Beneventa, and was ultimately beheaded at Puzzuoli. In the fifth century, his remains were removed to Naples, and his head and two vials of his blood are still preserved in a chapel, called the treasury, in the great church of that city. The usual time at which the pretended miracle recorded in the text is performed, is the 19th of September, the feast of St. Januarius.—Butler, in his *Lives of the Fathers, Martyrs, &c.* (vol. vii., p. 4), endeavors to maintain the reality of this miracle, by mentioning the names of a number of royal, venerable, and noble persons who had witnessed it. The blood, or rather pretended blood, in its congealed state, is of a dark-red color; but when brought in sight of the head, though at a considerable distance, it melts, bubbles up, and, on the least motion, flows on one side. Notwithstanding the great antiquity of this assumed miracle, and the argument of Butler in support of its authenticity, drawn from the improbability that so many holy, venerable, and learned persons, who have vouched for its truth, can have been, and are, hypocrites, impostors, and jugglers, we see no reason for altering our opinion that the blood is not real blood, and its liquefaction is most probably the effect of warming the chemical compound mentioned in the text, not so wonderful as he supposes.—Ed.

plete. At Naples, the pretended relics of St. John the Baptist annually shed blood;* and blood trickles from the withered bones of St. Thomas Aquinas, thus proving the authenticity of the relics held in veneration by the monks of Fossa Nuova;† and the bones of St. Nicholas of Tolentius,‡ exposed on the altar for the adoration of the faithful, soon fills with blood a large silver basin, placed below it by the foresight of the priest.§

From this solution, it seems to follow, that the Thaumaturgists were acquainted with alcoholic liquors, and with the art of distilling necessary to obtain them; and that thus it was easy for them to produce the spectacle of burning liquids, with which they astonished the multitude. This is not a rashly hazarded supposition. In an ancient sacred book of the Hindoos,|| in which are collected doctrines of the remotest ages, under the name of *Kea-soum*, mention is made of the distillation of spirits. This secret, indeed, was not confined to the temples, for the art of distillation had been practiced in Hindostan¶ from a very early age; at Nepaul;** at Boutan;†† and also at Thibet, where arrack is extracted from *chong*, or rice-wine,‡‡ by

* Pilati de Tassulo, *Voyages en différens pays de l'Europe*, tome i., pp. 350, 351.

† Prèz de Piperno.—Pilati de Tassulo, *Voyages, &c.*, tome i., pp. 345–350.

‡ St. Nicholas was a native of St. Angelo, near Fermo, in the Marca of Amona. He was born A.D. 1245, of opulent parents. While a young man, he entered himself as a novitiate in the order of Tolentino. After a life of austerity, he died in 1306, and was canonized by Eugenius IV., in 1446.—Ed.

§ Le P. Labat, *Voyages d'Espagne et d'Italie*, tome iv., pp. 100, 101.

|| *Oupnek'hat*, Brahmen 24.—*Journal Asiatique*, tome ii., p. 270.

¶ *Recherches Asiatiques*, tome i., pp. 335–345.

** *Bibl. Univ. Littérat.*, tome iv., p. 272.

†† Turner, *Embassy to Thibet, &c.*, vol. i., p. 50.

‡‡ Rice-wine is still made in China; and the lees, when distilled, yield a spirit not unlike brandy, which is named *show-choo*,

a process which the natives have certainly not learned from Europeans.*

It may be asked, was it from Europe that the art of distilling was received by the Nagals,† a free people of the mountains of Assam? The same question may be asked respecting the inhabitants of the provinces situated between Ava, Siam, and Pegu, where *toddy* is made from the juice of the Nipa palm-tree; or in reference to the islanders of Sumatra, who, in 1603, were seen by a traveler‡ making use of earthen tiles in extracting a liquor stronger than our brandy, from a mixture of rice and the juice of the sugar-cane. We may safely reply in the negative, and it is probable, that, five centuries before our era, this art had passed into Asia Minor, and into Greece. Traces of this communication exist, if we admit the ingenious inferences, by which Schulz§ endeavors to establish, that the liqueur of Scythia, the *Scythicus latex* of Democritus, was nothing else than alcohol, the Polish name of which, gorzalka,|| recalls the name chrusoloucos (κρυσολουκος), given it by the

san-tchoo, and *sumtchoo*, which literally means burnt, or hot wine. How long prior to the Christian era the Chinese exercised the art of making wine, and distilling it into spirits, it is impossible to say: but Du Halde* informs us, that two thousand two hundred and seven years before Christ, in the reign of the Emperor *Yu* or *Ta-yu*, rice-wine was invented, and its use produced such evil consequences, that it was expressly forbidden to be made, or drunk, under the severest penalties.—Ed.

* Cadet Gassicourt, art. *Distillation*, in the *Dictionnaire des Sciences Médicales.*

† *Nouvelles Annales des Voyages*, tome xxxii., p. 234.

‡ François Martin, *Description du premier Voyage aux Indes Orientales par le Français* (Paris, 1609), pp. 56–71 et 166.

§ Cadet Gassicourt, art. *Distillation.—Dictionnaire des Sciences Médicales.*

|| In Sclavonia, *gorilka* or *horilka* . . . In Sclavonian and in Polish, *gore* signifies a thing that burns; the termination *'lka* indicates a diminutive.

* Du Halde's *Annals of the Monorche, &c.*, vol. i., p. 145.

ancients. Not that we ought to regard the liqueur of Scythia as a preparation of spirit of wine, which only became known in Poland in the sixteenth century: but some of the kinds of spirits of which we have spoken might reach Scythia, as an article of its commerce with Thibet, or Hindostan. The Scythians, indeed, may have obtained it themselves from the productions of their own territories. Siberia has been long shut out from the age of inventions. There the stems of the birch are annually collected,* not only in order to obtain the sugary efflorescence with which, in drying, they become covered, but more particularly to extract from them a large quantity of alcohol, by causing them to ferment in water.

Aristotle assures us that art had been successful in producing oil from common salt.† It can scarcely be doubted that he alludes to the production of hydrochloric acid, which may have received the name of oil, in the same way that sulphuric acid has long been known under the name of *oil of vitriol*.‡ Finally, the art of distillation, as employed for the extraction of mercury from cinnabar, has been described by Pliny and Dioscorides,§ with no indication of its being a recent discovery: now this art having once become known, was it unlikely that the doctors of the temples should endeavor to apply it to fermented liquors?

When we recollect that, placed in contact with flame, the wine of Falerno became ignited;‖ that

* *Heracleum sphondilium* (fausse brancursine; patte d'oie, Cow parsley).—*Cours d'Agriculture de Rosier* (1809), art. *Berce*.

† Aristot., *Problem* xxiii., 13.

‡ Hydrochloric acid, which is procured from salt, is still popularly called *spirit of sea-salt*.—Ed.

§ Dioscorid., lib. v., cap. cx.—Plin., *Hist. Nat.*, lib. xxxiii., cap. viii.

‖ Plin., *Hist. Nat.*, lib. xiv., cap. vi. All wines contain either free or combined alcohol.—Ed

the wines of the Greeks and the Romans, even when diluted with two parts of water, were intoxicating in their effects; that these wines were preserved and improved by being kept in the highest story of their houses, in cellars protected from the heat of the sun, it is natural to suppose that a portion of pure alcohol, more or less strong, was mixed with them; and thus, that the art, having issued from the temples, was ministering to the uses of domestic life. But this supposition would ill accord with all that we know of the ancient art of making wine. Faithful to the path we have marked out, let us limit ourselves to inquire, if, when more abstruse secrets passed over from the temples of India to enrich those of Asia Minor, of Etruria, and of Greece, the art of obtaining spirituous liquors by distillation, universal in the East, would not follow in the same route, and fall also into the hands of the priests of these countries?* The gen-

* In the opinion of the editor, the reasoning of our author as to the introduction of the art of distillation into Asia Minor, Etruria, and Greece, from Hindostan, is by no means necessary in order to account for the knowledge of ardent spirits by the priesthood, and their employment in some of the mysteries of the temples. It is a well known fact, that there is no variety of the human race, of however low a grade, that has not some means of inducing intoxication, by means of beverages. In the Friendly Islands, when Captain Cook first visited them, the natives made an intoxicating beverage, by chewing the root of the kava-plant, and mixing the juice thus extracted with water. The Tartars make araka, a strong liquor from the fermented milk of the cow and the horse; in Egypt, araki is the produce of the date; and in India, that of the flowers of the madhuca-tree (*Bassia Butyracea*). The Siamese became intoxicated with lau, made from rice; the Chinese, with show-choo, a species of brandy, distilled from the lees of mandarin, a rice-wine: the Mexican, on a spirit made from pulyne, the fermented juice of the *Agave Americana;* and the Kamschatkains, on slutkaia trava, a spirit made from a sweet grass, and another from the juice of the whortleberry, mixed with that of the *amanita muscaria.* Now all inebriating liquors, however produced, and whether obtained from vegetable or from animal substances, derive their inebriating properties from alcohol; and, if that opinion be admitted, it is easy to conceive that as,

eral argument applies here in all its force; this art must certainly have been known in temples where apparent miracles, referable to its agency alone, were performed.

CHAPTER XV.

Secrets employed in working apparent Miracles in Initiations and in religious Rites.—Those giving Security against the Effects of Fire, and used in the Fiery Ordeal, known in Asia and in Italy, and practiced in the Eastern Roman Empire, as well as in Europe, in more modern Times.—Process by which Wood may be rendered Incombustible.

The knowledge of those energetic substances which, acting externally on organized bodies, enable man to come in contact with flame, boiling water, red-hot iron, and fused metals, had likewise its origin, or at least was practiced, in the temples. It was long confined to them; and it has never been fully revealed to the multitude.

The mere approach of fire to any combustible body is so frightful, and its ravages are so devastating, that an apparent miracle, displaying the power of resistance to its influence, could not fail to further the designs of the workers of wonders, as the following facts demonstrate:

when these liquors were heated or boiled, they must consequently have become weaker, and lost much of their intoxicating properties, those who observed this effect would be led to suppose that something was driven off with the vapor during the boiling, and without this the liquors ceased to intoxicate. The natural result of such an observation would be an attempt to regain this important ingredient, by condensing the vapor; and the possibility of doing this would be observed almost as early as the discovery of its being carried off by the vapor; hence the first step to the performance of the process of distillation. It is, therefore, probable that the discovery of ardent spirits is coeval with civilization; and that the process of procuring them was known in many countries, without being communicated from other nations; and, consequently, must have been familiar in the temples, the repositories of all the science and learning of antiquity.—Ed.

1st. The candidate for initiation probably experienced this trial on his admission. It would be absurd to believe, that in this mystery all the proofs to which the aspirant were subjected, were illusions and juggling tricks; and especially the ordeal by fire.

The Tartars, on the approach to their hordes of a stranger, or an ambassador, or a king, or even of an ordinary traveler, long observed the custom of causing him to pass between two lighted piles of fagots, in order to his purification from any malignant influence which he might bear about him.* It merely required the space between the fagots to be widened or narrowed, and this purification became either a trial, or a torture, or a mortal punishment. In the initiations, this ceremony, undoubtedly borrowed from the Tartars, might have been so managed as to enable the priests easily to punish imprudent individuals who put themselves in their power after having offended them, or who had attempted to shake the sincerity of the faith of others, or to thwart their intentions, by making them disappear among the flames.

In the rites of the most ancient initiations, fire was an important agent in the frightful trials of this nature, which were endured by Zoroaster before commencing his prophetic mission.†

Among the preparations of initiation were one or many baths, regulated by the priests. It is not difficult to conceive that, by immersion in these baths, a transient power of resisting fire was communicated to the aspirant.‡ In submitting after-

* Abel Remusat, *Mémoires sur les Relations Politiques des Rois de France avec les Empereurs Mongols.—Journal Asiatique*, tome i., p. 135.

† *Vie de Zoroastre, Zenda-vesta*, tome i., 2d part, p. 24.

‡ It is not easy to conjecture the nature of these baths; but the solution, whatever was the substance dissolved in the water, must

ward to the fiery ordeal, the faith of the aspirant must have been great enough to persuade him that he would be preserved from all injury by his confidence in the divinity; or, were this conviction not felt, he must have relied on his intrepidity.

have left upon the surface some incombustible matter; but it was not necessary that it should have been a non-conductor of heat, as some contend. Albertus Magnus informs us that it consisted of powdered lime, formed into a paste with the juice of the radish, the white of egg, the juice of the marsh-mallow, and the seeds of the flee-bane. He adds, that, if one coat of this compound is applied to the body and allowed to dry, and another coat laid on it, the body will be preserved from the effects of fire.* Many experiments have proved that the living body has an extraordinary power of resisting heat, provided it does not come into immediate contact with the burning substance. The experiments instituted by Duntze and Tillet on the Continent, and by Dr. Fordyce, Sir Joseph Banks, and Mr. Blagden, in this country, proved that a temperature between 198° and 260° Fahr. may be borne with impunity, if the feet of the person be covered with flannel, which is a non-conductor. To prove the influence of this temperature on inanimate bodies, they placed eggs and a beef-steak upon a tin frame in a room heated to nearly 300°, near the thermometer: in the space of twenty minutes the eggs were roasted quite hard, and in forty-seven minutes the steak was overdone and dry.† The female of a baker at Rochefoucault, clothed in flannel, was in the daily habit of entering her master's oven, and remaining long enough to remove all the loaves; and Dr. Brewster informs us that the late Sir Francis Chantry's workmen entered the oven employed for drying the molds, an iron apartment fourteen feet long, twelve feet high, and twelve feet broad, the temperature of which, with closed doors, was 350°, and the iron floor red-hot. They were guarded against the heat of the floor by wooden clogs, which were, of course, charred on the surface. "On one occasion," he adds, "Mr. Chantry, accompanied by five or six of his friends, entered the furnace, and, after remaining two minutes, they brought out a thermometer which stood at 320°. Some of the party experienced sharp pains in the tips of their ears and in the septum of the nose, while others felt a pain in their eyes.‡ These experiments prove the extraordinary heat which the living body can bear with impunity, and favor the possibility of persons passing uninjured through flame, provided the body can be guarded from being scorched by a non-conducting covering of an incombustible nature.—Ed.

* *De mirabilibus Mundi*, Amatelod., 1762, 12mo. p. 100. His words are, "Et post hoc poteris anductar sustinere ignem sine nocumento."
† *Phil. Transactions*, 1773,
‡ *Letters on Natural Magic*, 12mo. 1832, p. 312.

Issuing triumphant from this trial, his enthusiasm or his courage might fairly be calculated on; and it might be presumed that, on a necessary occasion, he would brave similar dangers, either in the possession of the secrets revealed to him, when deemed worthy to know them; or by the religious trust, without which even these secrets were reputed to lose their efficacy.

2d. It was not, however, only at the period of initiations that men were inspired with sacred awe, by witnessing the marvelous invulnerability with which these assumed favorites of heaven were endowed; its success being so well ascertained, it was frequently displayed in public.

Modern jugglers have appeared to eat burning fire, without being incommoded by it, yet we pay little attention to the circumstance. Eunus, the Syrian,* who revived the revolt of the slaves in Sicily,† and Barochebus,‡ who headed the last re-

* Eunus was a Syrian slave, who pretended to have immediate communication with the gods; and he obtained credit for his visions and pretended prophecies, by playing off the trick mentioned in the text. Florus (iii. 19) says, that it was performed by concealing in his mouth a walnut shell, bored and filled with ignited sulphur, which, when he spoke, threw out a flame. His words are, "Inore abolita nuce quam sulfure et igne stipaverit, leniter inspirans flammam inter verba fundebat." Not a very satisfactory explanation.—Ed.

† Florus, lib. iii., cap. xix. To explain how Eunus worked this miracle, the historian indicates a process almost impracticable. We thence conclude that Eunus, like many others, resorted to false assertions, in order the better to conceal his secret.

‡ Barochebus, or Shimeon Bar Cochba, signifying in Hebrew the *Son of the Star*, was a Jew, who pretended that he was the Messiah, and applied to himself the prophecy of Baalam. "There shall come a star out of Jacob, &c." His approach, as the Messiah, was preached by the Rabbi Aquiba, who was active in stirring the Jews to revolt, and was cast into prison by Lucius Quietus, the Roman goveror of Palestine, under Trajan. Soon after the return of Adrian, the rebellion of the Jews commenced, headed by Bar Cochba, who gained much confidence for his pretended miraculous power and his intrepidity. He took Jerusalem A.D. 132: and issued coins, bearing his head on one side, and on the

volt of the Jews against Adrian,* both appeared to vomit flames while speaking; and though this trick had enriched the public spectacles three centuries before the Christian era,† still it seemed miraculous; and supported, in the eyes of the multitude, the reality of the inspiration which the one pretended to have received from the goddess of Syria, and the other from the Omnipotent God of Israel.

The priestesses of Diana Parasya, in Cappadocia, commanded no less veneration, by walking with naked feet on burning coals.‡ The Hirpi,§ members of a small number of families established on the territories of the Faliscii,|| renewed the same miracle annually on Mount Soractes, in the temple of Apollo: their hereditary incombustibility was of value to them, as it secured their exemption from military service, and other public business. Varro¶ ascribes it to the efficacy of a liniment, with which they were careful to anoint the soles of their feet.**

other, the legend, "Freedom to Jerusalem." He was, however, defeated, and slain by Julius Severus, A.D. 135, at the capture of Bethar, to which he retired after being driven from Jerusalem, and in which he reigned as a king for three years. His pretensions being refuted, both by his life and death, he received the nickname of Bar Coziba, "the son of a lie."—Ed.

* St. Hieronym., *Apologetic.* ii., *adv.* Rufin.

† In Macedonia there figured, says Athenæus, at the espousals of Caranus, naked women who vomited flames. (Athen., *Deipn.*, lib. iv., cap. i.)

‡ Strabo, lib. xii.

§ They were called Hirpi, which signifies wolves in the Sumnite dialect, from a tradition, that they followed the tracks of these animals in migrating to the south of Sumnium Proper, where they settled. They performed the feat attributed to them at the annual festival, at the temple of Apollo, on Mount Soracte, in Etruria.—Ed.

|| Plin., *Hist. Nat.*, lib. vii., cap. ii.—Solin., cap. viii.

¶ Ut solent Hirpini qui ambulaturi per ignem, medicamento plantas tingunt.—Varro, *apud Servium in Virgil.—Æneid*, lib. xi., vers. 787, 788.

** This is attributed by Beckmann also (*History of Inventions*, transl., vol. iii., p. 277) to the skin of the soles of the feet being

Thus, in order to penetrate into a sanctuary, the hero of an Oriental tale* crossed some water, which was boiling without the application of fire (evidently a gaseous thermal spring), and traversed plates of red-hot steel. A pomatum, with which he had anointed himself, enabled him to brave both these dangers with impunity.†

3d. A more popular use, and one still better adapted to augment the sacerdotal power, was made of this secret.

Man, unskilled in the discernment of error, and incapable of confuting falsehood, has in every country demanded from heaven some miracle, which should expose the criminal or clear the innocent; thus giving up the honor or the life of his fellow-creatures to the decision of the priest, to the success of a philosophical experiment, to blind chance or to shameful fraud. Of all ordeals, that of fire is the most ancient and universal; it has made the tour of the globe. In Hindostan, its antiquity reverts to the reign of the gods. *Sita*, the wife of

made callous and horny, so as to defend the nerves from the impression which the hot coals would otherwise make upon them. He relates the following anecdote in support of his assertion:—"In the month of September, 1765, when I visited the copper works at Awestad, one of the workmen, for a little drink-money, took some of the melted copper in his hand, and, after showing it to us, threw it against the wall. He then squeezed the fingers of his horny hand close to each other; put it a few minutes under his armpit, to make it sweat, as he said; and taking it out again, drew it over a ladle filled with melted copper, some of which he skimmed, and moved his hand backward and forward very quickly, by way of ostentation." Beckmann adds, "I remarked a smell like that of singed horn, or leather, though his hand was not burnt."—Ed.

* *Les mille et un Jours*, 491e Jour.

† This is much better explained by the callous state of the soles of the feet as already mentioned; and we are told by Beckmann (*loco citato*) that this may be effected by frequently moistening the parts with sulphuric acid, or by constantly, for a long time, rubbing the feet with oil, which produces in the skin the same horny state as it causes in leather.—Ed.

Rama, the sixth incarnation of Vishnu, submitted to it, and stood on red-hot iron, to clear herself from the injurious suspicions of her husband. "The foot of Sita," say the Hindoo historians, "being clothed in innocence, the devoring heat was to her as a bed of roses."*

This trial is still practiced in several ways by the Hindoos. A creditable witness saw two accused persons subjected to it; one carried in his hand a red-hot ball of iron without receiving any injury, the other submitted to the trial of boiling oil.† But we must observe, that the latter was accused by a Bramin, and that all the Hindoo ordeals are under the influence of the priests.

For the rest, the mystery of their success is not very difficult to penetrate. The same writer was acquainted with a preparation, known also to the Hindoo Pandits, by which the hands, when anointed with it, might resist the effects of heat, and handle red-hot iron.‡ Thus it is easy for the Pandits to do a good turn to those criminals, whom they favor, by attaching various substances, particularly leaves of trees, to their hands, before the trial.§

A Mohammedan traveler, who visited Hindostan in the nineteenth century, saw the fiery ordeal conducted in the same manner. The trial by boiling water he also found in use there, and a man, who submitted to it in his presence, withdrew his hand, quite uninjured.

Zoroaster, eager to confute his calumniators, allowed melted lead to be poured over his body, and he received no injury.‖ Does it follow that

* Forster, *Travels from Bengal to Petersburg*, vol. i., pp. 267, 268.

† *Recherches Asiatiques*, tome i., pp. 478–483.

‡ *Ibid*, p. 482.

§ *Ibid*, pp. 477–479.

‖ *Anciennes relations des Indes et de la Chine*, traduites par Renaudot, pp. 37, 38.

he employed a preservative, analogous to that made use of by the Hindoo Pandits? On this point, his biographer is silent; but we learn, that previous to undergoing this frightful trial, his adversaries rubbed his body with various drugs.* Was this not evidently intended to destroy the effect of the salutary liniments which had been previously applied, and the knowledge and application of which they supposed him to be forearmed, although they failed in effecting their intention?

The ordeal by fire, and the secret of enduring it without injury, were very early known in Greece.

In Sophocles, the Thebans† suspected of exhuming the body of Polynicius, exclaim: "We are prepared to prove our innocence, by handling heated irons, or walking on the flames." This ordeal and the secret of enduring it, survived the decline of Polytheism.‡

* *Vie de Zoroastre. Zenda-vesta*, tome i., partie ii., pp. 32, 33.

† Sophocl., *Antigon.*, v. 274.

‡ Simplicus was elevated to the papal throne A.D. 497. He was previously married, but he separated himself from his wife, although she lived in the house with him. This circumstance having given birth to some scandalous reports, the lady resolved to prove her innocence by the ordeal of fire; and, for this purpose, chose a solemn day, and, in the presence of the assembled people, carried fire in her hands, and threw it upon her clothes without their being in the smallest degree damaged. She then placed some of the fire on the clothes of her husband with the same effect, and addressed him in the following words: "Receive this fire, which will not burn you, in order to convince our enemies that our hearts are as inaccessible to the fire of nuptial intercourse as our clothes are to the action of these burning coals." This apparent miracle astonished all who witnessed it, and at once silenced the calumny. After what has been said upon the power of walking on burning bodies, and the fact that the formation of cloth with asbestos, and the property of rendering common cloth incombustible by soaking it in a concentrated solution of alum, were known long before the above period, we can have no difficulty in explaining the assumed miracle.

It is melancholy to know that this custom had been transplanted from the pagan temples into the Christian churches. At the same time, it is gratifying to find, that in the year 810, the

Pachymerus* asserts, that he saw several accused persons acquit themselves, by handling red-hot irons, without receiving injury. At Dydmotheque,† a wife was ordered by her husband to submit to this trial, to clear herself from injurious suspicions. These were well founded, as the woman confessed to the bishop. By his advice she consented to lift the red-hot iron; and having carried it three times round a chair, at her husband's desire, she placed it upon the chair, which immediately took fire. The husband no longer doubted the fidelity of his wife. Cantacuzene relates the fact as a miracle, we quote it as a proof of the wise instructions and indulgent connivance of the bishop.

In 1065, some Angevin monks, in a lawsuit, produced as a witness an old man, who, in the midst of the Great Church of Angers, was subjected to the ordeal of boiling water. The monks declared the water in the caldron to be heated to an extraordinary degree;‡ the witness confirmed the

learned Agoband, Archbishop of Lyons, pronounced ordeals to be tempting God, and contrary to his law, as well as to the precepts of charity. They had been previously condemned by the Council of Worms in 829; and they were also proscribed by Gregory the Great. In England, they were suppressed by Act of Parliament, in the third year of the reign of Henry III.* There were three ordeals, or, as they were also termed, *vulgar purgations;* namely, one by fire, in which the accused person either placed his hand on red-hot iron, or walked barefoot over it; another by boiling water, into which the supposed culprit plunged his bared arm, to take out a stone at the bottom of the vessel; and a third by cold water, in which, if the person was drowned, he was pronounced guilty. The last was chiefly used for the trial of witches, and was resorted to long after the law for the suppression of ordeals was passed.—Ed.

* Pachym., lib. i., cap. xii.

† Toward the year 1340, of our era.—Cantacuzene, lib. iii., cap. 27.

‡ Water, unless it contain common salt, or some other saline substance, can not be heated above 212° Fahr.; so that this very declaration displayed a disposition to mislead the ignorant spec-

* Johnson's *English Canons*, A.D. 1065.

truth of his testimony, by coming out of it uninjured. At the commencement of the same century, the Deacon Poppon, desirous to win Sweyn II., King of Denmark, and the Danes back to Christianity, thrust his hand and arm, bared to the elbow, into a gauntlet heated to a white heat, carried it through the assembled Danes, and, having laid it at the feet of the prince, appeared quite unscathed.*

Harold, pretending to be the son of Magnus, King of Norway,† and as such claiming the succession, he was required to prove his birth by the fiery ordeal. He submitted to it, and walked over red-hot iron with impunity.

Two centuries later, Albertus Magnus‡ described two processes, by which a transient incombustibility might be imparted to the body of a man. A writer of the sixteenth century§ pretends that it is sufficient to wash the hands in wine lees, and sub-

tators by enhancing the severity of the ordeal. Fluids that boil at a low temperature may have been substituted for water; and, as Sir David Brewster properly remarks, "even when the fluid requires a high temperature to boil, it may have other properties, which enable us to plunge our hands into it with impunity." He details a fact, mentioned to him by Mr. Davenport, who saw one of the workmen in the King's Dock at Chatham, immerse his arm in boiling tar; and Mr. Davenport immersed his forefinger in it, and moved it about for some time "before the heat became inconvenient." Now tar does not boil at a lower temperature than 220°, or eight degrees above that of boiling water; and the phenomenon can only be explained by the fact that tar is a worse conductor of heat than water, and altogether a bad conductor. Mr. Davenport ascribes this non-conducting power of the boiling tar to the abundant volatile matter which is evolved "carrying off rapidly the calorie in a latent state, and intervening between the tar and the skin, so as to prevent the more rapid communication of heat."*—Ed.

* Saxo-Grammat., *Hist. Dan.*, lib. x.

† Died in 1047.—Saxo-Grammat., *Hist. Dan.*, lib. xiii.

‡ Albert., *De mirabilibus mundi.*

§ E. Taboureau, *Des faux sorciers.*

* Brewster's *Letters on Natural Magic*, p. 302.

sequently to steep them in fresh water, in order to allow a stream of molten lead to pass over them without injury. His assertion that he proved it experimentally upon himself may be doubted.

The charlatans who plunge their hands into molten lead may deceive our eyes by substituting for lead a composition of the same color, which becomes liquid at a very moderate heat; such is the fusible metal of Darcet.* Were it necessary, I believe that science could also readily furnish an easily fusible metal, outwardly resembling copper or bronze. From science also may be derived the secret of giving the appearance of ebullition to a moderately heated fluid. But judicial or religious ordeals have not always been in the hands of men disposed to favor deceit. In that of the red-hot iron, it is not easy to conceive fraud; and the secret of nullifying its effects has ever been as universal as its use. The knowledge of it has also been widely extended. One of the Eastern Tales we have so often quoted, mentions a man, of the inferior classes, who plunged his hand into the fire and handled red-hot iron without being burned.†

* The fusible metal is a compound of mercury, tin, and bismuth, and resembles lead in its color. It melts at so low a temperature, that a tea-spoon made of it dissolves in a cup of hot tea. It was most probably this metal, in a fused state, which Richardson, an English juggler in the end of the seventh century, poured upon his tongue instead of melted lead, which he professed to employ. We are not informed what he substituted for melted glass and burning coals, which he appeared to chew. A conjurer, who exhibited himself ten or twelve years ago in the metropolis, excited much astonishment by swallowing phosphorus. I am of opinion that this was effected by instantly closing the mouth, so as to prevent the ignition of the phosphorus; and in a few minutes afterward, on leaving the room, which he always did after the feat, he ejected it from his stomach, by causing vomiting. Phosphorus does not inflame unless it be exposed to the action of the air.—Ed.

† *Contes inédits des Mille et une Nuits* (Paris, 1828), tome iii., pp. 436, 437.

We discover the same secret in two different parts of Africa. In the country of the Caffres and in Loango, some Portuguese travelers saw the accused called on to justify themselves, by taking hold of red-hot iron. It is a law among the Ioloffs,* that, when a man denies a crime imputed to him, a red-hot iron shall be applied to his tongue, and according as the fire affects him, he is declared culpable or innocent; but all the accused are not condemned.

How is it then, that the secret of resisting this ordeal is still so imperfectly known to European philosophers, notwithstanding our intercourse with Hindostan, where it certainly exists? In our own days, men, claiming to be considered incombustible, have submitted their experiments to the inspection of the most enlightened men in France with as much confidence as a mere popular exhibition.

Uncertainty on this point must soon end. While this invulnerability has been, by several learned men, ascribed to long habit, and a peculiar organization, Doctor Semintini proposes, as the solution of the problem, the probable interposition of some foreign substance between the skin and the glowing body: he has ascertained, that a saturated solution of alum preserves any part strongly impregnated with it from the action of fire, particularly if the skin is rubbed with soap after the application of the alum.† He states that, by means of this

* G. Mollien, *Voyage dans l'intérieur de l'Afrique, du Sénégal, et de la Gambie*, tome i., p. 105.

† This opinion is highly probable, as we are informed by Beckmann, that, in Catholic countries, where the ordeal by fire was taken as the exculpatory evidence of crime, the accused person was placed three days and three nights under the care of the priests, both before and after the trial, in order, it was alledged, to prevent him from preparing his hands by art. His hands were covered up, and the coverings sealed during the three days which

preparation, he repeated, on his own person, the experiments of the incombustible men.*

This process, the efficiency of which has been tested and confirmed by recent experiments, was probably the same as made use of by the ancients, since they also employed inert materials to enable them to encounter the flames.

Independently of the art of spinning and weaving the asbestos, which was carried so far as to surprise the ignorant by apparent miracles wrought with its agency, the ancients were acquainted with the fact, that wood, saturated with alum, was capable of withstanding the flames for a length of time. Such was the wooden tower raised by Archelaus† in the Pireus, which Sylla in vain attempted to burn; and which, if we can credit the historian Quadrigarius, was rendered incombustible by Archelaus having taken care to impregnate the wood of which it was constructed with alum.‡ The wooden tower of larch-wood, which Cæsar found it impossible to set on fire,§ must have been preserved by a similar precaution. This was also, without doubt, the secret of the wood made use of in Turkistan, which preserved the houses built of it from fire.|| We are acquainted with no species of incombustible wood: consequently the opinion

preceded and followed the ordeal. "It is highly probable," says Beckmann, "that during the three first days, the preventive was applied to those persons whom they (the priests) wished to appear innocent: and that the three days after the trial were requisite to let the hands resume their natural appearance." When the ordeal was abolished, and this art became valueless, the secret was lost.—Ed.—Beckm., *Hist. of Inventions*, trans., vol. iii., p. 281.

* *Essai sur la Physiologie Humaine*, par G. Grimaud et V. C. Durocher, Paris, 1826, p. 76.

† A king of Cappadocia, who was conquered by Sylla as a punishment for assisting Mithridates.—Ed.

‡ A. Claud., *Quadrigar. Annal.*, lib. xix., apud. A. Gell., lib. xv., cap. i.

§ *Vitruv. de architect.*, lib. ii., cap. ix.

|| *Histoire de Gengiskan*, p. 144.

prevailing in Asia, Greece, and Gaul respecting the existence of this marvelous quality in the larch,* or any other tree, only served, under the veil of a pretended miracle, to conceal a real and valuable secret, the exclusive possession of which was thus secured.

CHAPTER XVI.

Secrets to work upon the Senses of Animals.—Ancient and modern Examples.—Of the Power of Harmony.—The power of good Treatment.—Crocodiles and Snakes tamed.—Reptiles whose Venom can either be Destroyed or Extracted.—Ancient Psylli.—The Faculty which they possessed of braving the Bites of Serpents put beyond Doubt, by the frequent recent and repeated Experiments in Egypt.—This Faculty proceeds from odoriferous Emanations, which affect the Senses of the Reptiles, and escape those of Man.

ALMOST as terrible in their effects as fire, and often more difficult to avoid, are venomous reptiles and ferocious animals: it may be asked, do they lose their power to injure at the command of a man aided by a supernatural science? Many of the recitals of the ancients upon this subject have aroused the incredulity of the moderns. The history of Orpheus passes with many for a pleasing allegory; and it was believed that those men, those Manades who played with tigers and panthers, and who, in the representations of the initiations, handled serpents with impunity, were merely jugglers.

It is not, however, denied that there existed occult methods of acting on animals who are free from our empire by their natural independance. The odor of *catmint*,† and that of *marum*,‡ exer-

* Abies *larix*, a native of Europe, Russia, and Siberia.—ED.

† Nepeta *cataria*, a perennial plant, common on gravelly and chalky banks, and on road sides, flowering in July. It is a soft, hoary plant, with the upper part of the flower white, but the lower lip spotted with crimson. The whole plant exhales a strong, pungent odor, peculiarly grateful to cats.—ED.

‡ Teucrium *marum*, cat-thyme, a native of the shores of the

cises so powerful an influence on the sense of smelling of cats, particularly in warm climates, that it appears marvelous to any one who witnesses the effects of it for the first time. It is easy to take advantage of these and similar plants for enticing the animals whom they affect. If we may believe ancient observers, the elephant loves sweet odors, such as those of flowers and perfumes,* and she-goats of the Caucasus are so delighted with the odor of cinnamon, that they will eagerly follow the hand which presents it to them.† In London, at this day, some men possess the art of enticing rats from their holes, and constraining them, in broad day, to enter into a rat-trap : the charm consists in some of the straw, placed in the trap, saturated with the oil of cumin,‡ and of anis.§ In the last century, a man might have been seen walking covered with a swarm of bees, which spread themselves over his hands and face, and seemed to have forgotten the use of their wings and their stings. It is probable that this secret resembled that which we have pointed out.

Exposure to ferocious beasts was an ordeal used in the Roman Empire; consequently, secrets proper for lulling the ferocity of ravenous animals were, most probably, well known. Maricus, who, under Vitellius, endeavored to restore the Gauls to free-

Mediterranean. Cats are so fond of the odor of this *marum*, that they tear the plant when they meet with it. Our author might have added valerian to his list of plants.—Ed.

* Ælian, *De Nat. Anim.*, lib. i., cap. xxxviii. ; lib. xiii., cap. viii.

† Philostrat., *Vit. Apollon.*, lib. iii., cap. i.

‡ Cuminum *cyminum*, a native of Upper Egypt, and cultivated in Sicily and Malta. The fruit resembles carraway, and has a powerful aromatic odor, depending on its volatile oil, the odor of which is not agreeable to men, although extremely delightful to rats.—Ed.

§ Pimpinella *anisum*, a native of Scio, Egypt, and Asia. The volatile oil has a powerful, yet not unpleasant aromatic odor. It is poisonous to pigeons.—Ed.

dom, passed himself off for a god. Being captured in battle, he was delivered up to wild beasts; but he received no injury from them: an event which appeared to confirm his pretensions, until Vitellius caused him to be devoured.* The Egyptian Serapion† predicted a similar death to Caracalla; a famished lion was let loose upon the prophet; he presented his hand to the animal, who retired without injuring him. Another ordeal, however, proved fatal to him.‡ When wild beasts were let loose upon Thecles, some of the women having thrown upon him spikenard,§ others cassia,|| a third set precious aromatics, and a fourth perfumed oil, the beasts were as if overcome with sleep, and Thecles escaped untouched. This recital, borrowed from a work which dates from the commencement of Christianity, is probably founded on a real inci-

* Tacit., *Histor.*, lib. ii., cap. lxi.

† Serapion was a physician of Alexandria, in the third century. His prediction was drawn forth by the vices and cruelties of Caracalla, who, in consequence of a joke, which likened him to Œdipus and his wife to Jocasta, slaughtered many thousands at Alexandria. He was assassinated at Edessa, by Macrinus, A.D. 217, in the forty-third year of his age. The author, therefore, labors under a mistake in attributing his death to an ordeal.—Ed.

‡ Xiphilin. in *Anton. Caracal.*

§ Spikenard, Nardastachys *Iatamansi* of De Candolle, the Nard of the Bible, and the Nardo-stachys of the ancients. It is known in India by the name *bal-chur*. It is a mountain plant, belonging to the natural order, valerianaceæ, and has a close affinity to the Celtic valerian, which is found on the mountains of Austria; whence it is exported to Egypt on account of its powerful yet agreeable odor, for perfuming baths. In India, the iatamansi is used for scenting oils and perfumes.—Ed.

|| The name cassia is here probably intended for cinnamon, as the oil of the laurus *cassia* has not an agreeable odor. The term *kaschu-manis*, sweet wood, derived from two Malayan words, is frequently used for cinnamon in India. The wood of the tree, without being barked, was anciently carried into Greece by the Phœnicians, who, at the same time, probably also imported the oil; and it is more likely that, in the ceremony referred to in the text, neither the spikenard nor the cinnamon was used, but merely the volatile oil of these plants.—Ed.

dent; and affords a proof that the use of penetrating odors has sometimes been able to save the wretches condemned to satiate the hunger of carnivorous animals. From a fact related with some details by Athenæus, it would appear that, in Egypt, the juice of the citron, taken internally, was used to work this assumed miracle. The experiment that he relates is the more striking, as, on repeating it, one of the wretches who had escaped death was permitted to use this precaution, a favor which was denied to another. The first was spared by the ferocious beasts; the second perished, being immediately torn to pieces.* It may be rationally doubted whether the citron has ever been thus efficacious; but the rind might serve to inclose more powerful ingredients.† According to Ælian a coating of elephant's grease is an infallible preservative;‡ the odor—as penetrating as it is fetid—peculiar to the carcass of this great quadruped, renders this less incredible. A similar secret will doubtless explain the security of the jugglers who, says Tertullian, are seen, in public places, exposed to the fury of ferocious beasts, whose bites they defy and avoid with wonderful agility. Firmus, who was invested for a time with the imperial purple at Alexandria, swam among crocodiles with impunity: it is supposed that he owed this preservation to the odor of the crocodile's grease with which he had rubbed his body.§ It is probable that the knowledge of an

* Athen., lib. iii., cap. v.

† The juice of the citrus *medica* is not unlike that of the orange. The odor of the rind is grateful, but not very powerful; it is therefore more probable that the fruit, after the abstraction of the juice, was filled with strong odors, than that the juice of the fruit itself, taken internally, was employed for the purpose mentioned in the text.—Ed.

‡ Ælian, *De Nat. Animal.*, lib. i., cap. xxxvii.

§ Vospic. in *Firmo*.

analogous secret having become common, was the cause of a similar ordeal formerly employed in Hindostan falling into disuse. The accused was obliged, in the presence of Bramins, to swim across a river frequented by the moudela (crocodile); and was only absolved when he escaped from the jaws of this amphibious animal.* The Mexican priests rubbed the body with a pomade, to which they attributed magical virtues; and at night they wandered in desert places, without fearing ferocious beasts, the odor of this unguent keeping them at a distance. There still exists a method of making animals, generally formidable, follow any one without danger: a feat commonly practiced by men who make a trade of enticing away dogs for sale to supply anatomists; and sometimes by hunters, who wish to allure wolves into a snare. It consists in striking the sense of the male by odors resembling the emanations which the female exhales in the time of rutting. It has been mentioned in detail, by one of the most original and the most philosophical writers of the sixteenth century.† Galen‡ has also mentioned it; but it was known long before the time of that celebrated

* Paulin de St. Barthélemi, *Voyage, &c.*, vol. i., p. 428. The crocodile of the Ganges differs from that of the Nile, and is placed by Cuvier in that division of the tribe named Glaviales; but it is equally voracious as the Egyptian reptile. As the Egyptian priests possessed the secret of taming their crocodiles, it is not improbable that the Bramins also tamed the moudela. The ordeal mentioned in the text was performed in their presence; and when they were desirous of exculpating the accused, a part of the river containing the tame crocodile might be selected. The tame crocodiles in Egypt were fed with cakes and sweetmeats; and rings and precious stones were hung in the opercula of their ears, which were pierced for the purpose, and their forefeet adorned with bracelets, when they were presented for the veneration of the people; a demonstrative proof of the tameness to which they were reduced.—Ed.

† Rabelais, *Hist. de Gargantua et de Pantagruel*, lib. i., chap. xxii.

‡ Galen, lib. i., *Aphorism*, xxii.

physician. In the temple of Olympus, a bronze horse was exhibited, at the sight of which real horses experienced the most violent emotions. Ælian judiciously observes that the most perfect art could not imitate nature sufficiently well to produce so strong an illusion: like Pliny and Pausanias,* he consequently affirms, that in the casting of the statue, a magician had thrown some hippomanes upon it; and thus we have the secret of the apparent miracle. Every time they desired to work it, they duly covered the bronze with liquid hippomanes, or with a drug which exhaled the odor of it.†

A similar artifice attracted the bulls toward the brazen heifer, the master-piece of Myron, as it is not probable that these animals were sensible of the beauty of the sculpture: a less perfect representation would, under similar circumstances, have equally provoked their desires.

The same secret shows, perhaps, the origin of the dream by which, it was said, a mortal favored by the gods drew after him lions and tigers, who were thus deprived of their ferocity. This miracle has been attributed more generally to the power of music. Plato assures us that song and melody can tame savage animals, and even reptiles.‡ We might be tempted to believe that, in this case, the philosopher had allowed himself to be governed

* Pausanias, *Eliac.*, lib. i., cap. xxvii.—Plin., *Hist. Nat.*, lib. xxviii., cap. ii.—Ælian, *De Nat. Animal.*, lib. xiv., cap. xviii.

† The hippomanes is a plant which grows in Arcadia—by which young coursers and swift mares are excited to furious desires.—(Theocrit., *Eidyll*, ii., vers. 48, 49.) Junius Philargyrus (in *Georgic.*, lib. iii., v. 280) confines the effect of this plant to the mares who eat of it. Nevertheless, perhaps, the odor which this vegetable exhaled was the principal of its properties, and they were enabled to make use of it to work the assumed miracle which has been noticed.

‡ Plato, *De Rep.*, lib. ii.

by the not very philosophic liveliness of his imagination, or that he had only repeated an opinion, which we might suppose was not received from nor founded upon observation. The charm of music, however, has consoled elephants in their captivity, when they have fallen into the power of man; and, in their domestic state, the execution of measured airs and harmonized chords is sufficient, it is said, to make them stand erect upon their hind legs.* In Libya, savage mares are so sensible to music, that it has been used as a method of taming them.† Even some fish, we are told, are not free from its power, and it has made the capture of them much more easy;‡ and moderns, less disposed to be credulous, are nevertheless forced to acknowledge the power which music exercises over tortoises and spiders.§ Its influence over elephants has been frequently verified before our eyes, in public exhibitions. A traveler has also informed us that he saw, with surprise, the cumbrous hippopotamus so delighted by the measured noise of a war-march, as to follow the drums, swimming the whole length of a river. Large lizards and iguanos are still more susceptible of harmonious sounds. A song, and even soft and measured whistling, have more than once been able to stop them, until they were under the hand of the hunter.‖

* Ælian, *De Nat. Animal*,, lib. xii., cap. xliv.; lib. ii., cap. ii.

† *Ib.*, lib. xii., cap. xliv.

‡ *Ib.*, lib. vi., cap. xxxi., xxxii. It is perhaps on this account that fishermen, who are generally extremely superstitious, sing a peculiar crone in dredging oysters.—Ed.

§ We are not aware of the ground upon which this remark of our author is founded; as the organ of hearing in spiders has not been discovered, and that of the tortoise is not well adapted for the delicacy of musical sounds.—Ed.

‖ Lacépède, *Histoire Naturelle des Quadrupèdes Ovipares*, art. *Iguane.*—Fournier-Pescay, *Dictionnaire des Sciences Médicales*, art. *Musique.*

Cats, who are overcome or frightened by sounds that are too piercing, are agreeably affected by music, if the softness of its modulations are proportionate to the susceptibility of their organs. Dogs, on the contrary, appear to be sensible to none but mournful music. Loud and piercing sounds draw from them only prolonged howlings.

In a temple, a lyre, which passed for that of Orpheus, was preserved; an amateur bought it, persuaded that in touching it he should, like the first possessor of the instrument, see animals running round him charmed by the melody. He made a trial of it in a remote place, and soon perished, having been torn to pieces by savage dogs.* It was not only, as Lucian pretends, his presumption which cost him his life, but his imprudence; and the forgetfulness of a physical effect which daily experience recalls to our recollection, and which would place the life of an organ-player in danger, if out of the reach of succor. He made the harsh sounds of his instrument to resound in the midst of a troop of wild dogs.†

* Lucian. . . . "*Contre un Ignorant qui achetait beaucoup de Livres.*" *Œuvres complètes de Lucien*, tome iv., pp. 274–276.

† The influence of loud and harsh sounds on dogs is well exemplified in the following anecdote, recorded by Sir David Brewster, in his *Letters on Natural Magic:* "When peace was proclaimed in London, in 1697, two troops of horse were dismounted, and drawn up in line in order to fire their volleys. Opposite the center of the line was the door of a butcher's shop, where there was a large mastiff dog of great courage. The dog was sleeping by the fire; but when the first volley was discharged, it immediately started up, ran into another room, and hid itself under a bed. On the firing of the second volley, the dog rose, ran several times about the room, trembling violently, and apparently in great agony. When the third volley was fired, the dog ran about once or twice with great violence, and instantly fell down dead, throwing up blood from the mouth and nose." (p. 216.) It may be said, that the dog, in this instance, might have been dreaming, and connected the noise of the firing with some incident in his dream sufficient to excite great alarm; but we are told that he was a dog of great courage, and although he might be greatly

The influence of modulated sounds upon animals must have been more studied formerly than it is in the present day; the experiments were more varied, and their results more extended. Let us remember that, in the temples, they sought out and tried every method of working what they desired to be regarded as miracles; and what wonder could be more seducing or more worthy of being represented in the celebration of those mysteries, of which Orpheus was one of the principal founders, than that which realized the brilliant miracle of that musician?

We are ignorant how far the moral development of animals extends. We, who in our relations with them, obtain every thing by terror, by constraint, by hardship, and by punishments, rarely or never seek to know what may be obtained from them by mildness, by caresses, or by amiable feelings. We seem practically to follow the absurd opinion of Descartes: we treat animals as if they were only machines. Less enlightened nations than ourselves treat them as sensible beings, as creatures not less susceptible of kindness than men —beings who may be led by good treatment, and by that part of their feelings and affections of which these nations know how to take advantage. What can be thus obtained, renders probable all that ancient authors have related of savage animals which have become domesticated, and have even been rendered affectionate. Cynocephali have lost their love of unsettled independence, and bulls their wild and suspicious temper; even lions and eagles have lowered their pride, and exchanged it for a

agitated on being awakened by the firing, yet it is not likely that this alarm would continue to such an extent as to cause death. We must, therefore, refer it to the great susceptibility of dogs for sound, and the effect of so loud a concussion of the air on his nervous system.—Ed.

submissive attachment to the man from whom they have received kindness.*

Goats and crows were brought into the temples to declare the oracles; but the learned animals that are frequently offered to public curiosity show us what part of the will of Heaven charlatanism could draw from these singular interpreters.

We may hesitate, therefore, before denying the existence of the tamed tigers, which so many traditions inform us figured in the fêtes of Bacchus; and which, bred at Thebes, attended in the temples of that god, opening and closing their frightful jaws, that there might be poured into their throats, at long intervals, draughts of wine,† with which prudence probably mixed some soporific drugs.

* Ælian, *De Nat. Animal.*, lib. ii., cap. xl.; lib. v., cap. xxxix.; lib. vi., cap. x.; lib. xii., cap. xxiii. The editor saw the exhibition of Van Amburgh, when he visited London in 1843. He fearlessly entered the grated boxes or dens containing tigers and other savage animals, who seemed to regard him with no evil intentions; and, indeed, were completely submissive to his control. The method which this man employed to tame these animals is not known; but it is probable that it was partly gratitude and partly fear which held them in submission. He regularly fed them himself, and their hunger was well satiated before his public exhibitions. The ferociousness of wild carnivorous animals may be regarded as a gift of Providence, to enable them to obtain their subsistence. They occasionally fight with each other, and the conquered may even be devoured by the conqueror; but it does not follow that their dispositions are naturally cruel, or that the ferocity which they display is exerted for other purposes than in procuring their prey when hunger prompts. Even animals usually supposed to have a natural enmity to each other, as the hawk and the linnet, if well fed, display no disposition to exert animosity. A striking proof of this remark is daily exhibited in the streets of London, by a person who has a cage containing cats, mice, hawks, linnets, rabbits, and various other animals, living together in perfect amity. It is therefore very possible that a man, being exposed to wild beasts, soon after they have been well fed, would remain unattacked; and thus an apparent miracle be produced.—Ed.

† "*Expectant que cibus, fuso que horrenda supinant ora mero.*" (Stat., *Thébaid.*, lib. vii., vers. 575, 576.)

The employment of carrier-pigeons did not take its rise in civilized Europe; its antiquity is so great in the East, that the national writers affirm it was used in the Pantapole of Palestine. Among the Arabs two months were sufficient for the education of a pigeon: bad treatment had no part in it; and the pigeons were so well brought up, that, according to the direction in which they were placed, they carried messages to three different places.* The Greeks were not ignorant of this art. A dove flew from Pisa to the isle of Ægina, to announce to the father of Taurosthenus the victory which that wrestler had won, the same day, in the Olympic games. This fact, though not common, appeared too simple for the friends of the marvelous! In detailing the event, instead of the winged messenger they substituted a phantom, an apparition.† Ancient history informs us of more than one victory, the news of which had arrived almost at the moment in which it was accomplished; and, probably by an analogous process, even in places distant from that in which the battle had been fought. The means of communication being kept secret, its rapidity appeared a miracle due to the intervention of some supernatural agent.

If it were proposed to a European to tame a crocodile, and if he undertook the task, he would probably employ hunger and the privation of sleep; and he would endeavor to weaken the animal until he rendered him docile or incapable of resist-

* The *Carrier-Dove* (translated from the Arabic, by Sylvester de Sacy, in 8vo., Paris, 1805), pp. 36, 52, 74.

† Ælian, *Var. Hist.*, lib. ix., cap. ii.—Pausanias, *Eliac.*, lib. ii., cap. ix. In the last days of the Roman republic, Hirtius employed the same method to communicate his movements to Decimus Brutus, besieged in Modena. (Frontin., *Stra.*, lib. iii., cap. xiii.) The impatience of swallows to fly back to their nests has caused them to be employed in a similar manner. Pliny has quoted two examples of it. (*Hist. Nat.*, lib. x., cap. xxv.)

ance. Would he succeed? We may reply in the negative. Mr. Laing* saw, at the house of the King of the Soulimas,† a tamed crocodile as gentle as a dog; but this animal was a prisoner, shut up in a pond in the palace. Would it not, we may inquire, regain its natural ferocity were it set at liberty? The Scheik of Suakem‡ having caught a young crocodile, tamed it, and kept it in a pond near the sea. The animal grew very large, but did not lose its docility; the prince placed himself upon its back, and was carried a distance of more than three hundred steps by it.§ In the isle of Sumatra, in 1823, an immense crocodile established itself at the mouth of the Beaujang; it had chased away all the other crocodiles, and devoured all those who ventured to return. The inhabitants rendered it divine homage, and respectfully supplied it with food, "Pass," said they to the English missionaries who relate the fact, and who seemed afraid to approach the formidable amphibious creature, "pass on, our god is merciful." In fact, it peaceably regarded the Europeans' boat, without giving any signs either of fear or anger, or of a wish to attack it.‖ This trait recalls to recollection the sacred crocodiles which the people of Upper Egypt worshiped. We might ask, is that

* Laing, *Travels among the Timaunics, the Kouranko, and the Soulimana*, p. 353.

† The Soulimas are a negro race, occupying the country near the river Ioliba, on the coast of Sierra Leone. They are a short, muscular, and warlike people.—Ed.

‡ A sea-port town in Nubia, on the west coast of the Red Sea. —Ed.

§ Vincent le Blanc, *Voyages*, 1ère partie, chap. ix., tome i., p. 39.

‖ John Anderson, missionary to the eastern side of Sumatra, in the year 1823.—*Nouvelles Annales des Voyages*, tome xxx., p. 260. The crocodile of the Ganges is also very easy to tame.—*Voyages aux Indes Orientales*, by P. Paulin de Saint Barthélemi, tome iii., pp. 281, 282, note.

a fact? can it be possible? Did not the priests every day run the chance of becoming the prey of their divinities, of ponderous and fierce animals, formidable on the earth, and still more so in the water? Far from this being the case, we see how easy it is to tame the worshiped animals, who, thus reassured, by long experience, against the fear of the aggressions of man and the anxiety of want, lose their savage instinct. There was, therefore, probably little exaggeration in what was said of the sacred crocodiles by a disciple of the Egyptian priests: "The soukh-oos is kind, for he never harms any animal."*

* Damasc., *Isidori Vit. ap. Photium. Bibl.*, cod. 242. Soukh-oos: this name, according to M. Geoffroy de St. Hilaire, designated a distinct species of crocodile. The Egyptians detested the crocodile *T'emsah*, a voracious animal, which caused them to suffer frequent injuries; but they liked the soukh, a species of a less size, rarely terrible to men, and which, showing itself on earth before all the other crocodiles, at the swelling of the Nile, seemed to announce and to bring the benevolent inundation, of which it became the sacred symbol. Upon the banks of the Ganges the Indians also distinguished two species of crocodiles, one ferocious and carnivorous, the other perfectly innocent. (Ælian, *De Nat. Anim.*, lib. xii., cap. xli.)

The reptile thus worshiped is supposed by M. Geoffroy de St. Hilaire not to have been the common crocodile, *Crocodilus vulgaris*, the *T'emsah* of the Egyptians, but the Monitor, or *Suchus*; an opinion, however, which Cuvier combats, because he affirms that the monitor is as ferocious as the common crocodile. In ancient Egypt, the crocodile was one of the symbols of Typhon, the evil deity; and some of the bronzes bear the representation of a man, supposed to be Horus (whose father, Isis, was slain by Typhon), standing on a crocodile. The tame crocodiles, as stated in a former note, were daily fed with roasted meat and cakes, and had occasionally mulled wine poured down their throats. Their ears were ornamented with rings of gold and precious stones, and their forefeet adorned with bracelets. As such was the treatment of the sacred crocodiles, there is no difficulty in accounting for their docility. The most ferocious animals will not attack their ordinary prey, when well fed. The following account is given of a tame alligator, in a private letter, quoted in a review of the *Erpétologie Générale*, and affords an excellent proof of the foregoing remark. The writer. having ridden a considerable distance to a village about eight miles from Kur-

The agility of the movements of serpents; the enormous strength of these reptiles; the difficulty of distinguishing at the first glance those whose bite is not venomous from those which are poisonous, is sufficient to explain the fear and horror

rachee, in Scinde, and feeling thirsty, went to a pool to procure some water. "When I got to the edge," says he, "the guide who was with me pointed out something in the water, which I had myself taken to be the stump of a tree; and although I had my glasses on, I looked at it for some time before I found that I was standing within three feet of an immense alligator. I then perceived that the swamp was crowded with them, although they were all lying in the mud so perfectly motionless that a hundred people might have passed without observing them. The guide laughed at the start I gave, and told me that they were quite harmless, having been tamed by a saint, a man of great piety, whose tomb was to be seen on a hill close by; and that they continued to obey the orders of a number of Fakeers, who lived around the tomb. I proceeded to the village immediately, and got some of the Fakeers to come down to the water with a sheep. One of them then went close to the water with a long stick, with which he struck the ground, and called to the alligators, which immediately came crawling out of the water, great and small together, and lay down on the bank all around him. The sheep was then killed and quartered; and while this was going on, the reptiles continued crawling until they had made a complete ring around us. The Fakeer kept walking about within the circle, and if any one attempted to encroach, he rapped it unmercifully on the snout with his stick, and drove it backward. Not one of them attempted to touch him, although they showed rows of teeth that seemed able to snap him in two at a bite. The quarters of the sheep were then thrown to them, and the scene that followed was so indescribable that I shall not attempt it; but I think if you will turn to Milton, and read his account of the transformation of Satan and his crew in Pandemonium, you may form some faint idea 'how dreadful was the din.' In what manner these monsters were first tamed I can not say. The natives, of course, ascribe it to the piety of the saint, who is called Mieggcr Pier, or Saint Alligator."*

Another reason might be assigned for the impunity with which persons have gone among crocodiles, namely, that in some place, as in the Nicobar Islands, there may be two species of crocodiles—one small, fierce, and rapacious, the other large, less fierce, and preying only upon carrion. This anecdote is, at all events, quite sufficient to give authenticity to the stories of the ancients respecting the crocodile. The Egyptian god, *Souk*, is represented with the head of a crocodile.—Ed.

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* *Edinburgh Review*, vol. lxxx., p. 428.

which serpents inspire, and the idea of supernatural power attached to the art of handling them, and of rendering them powerless. The biographer of Pythagoras, anxious to exalt his hero, calls our admiration to the philosopher exercising a power equal to that of Orpheus upon animals, and handling with impunity serpents, dangerous to all but himself.* Jugglers, who exhibit in a similar manner in public, profit by their facility in inspiring fear, to extort money from the curious; and this singular kind of pilfering has been repeated often enough to draw down the animadversion of the law upon its authors.†

There were always supposed to be a great number of serpents, the bite of which was not of a venomous character, which easily admitted of their being tamed. Such were doubtless those immense but harmless serpents that were seen in many ancient temples;‡ the serpent, fifteen feet long, which Ajax, son of Oileous, had tamed,§ and which followed him like a faithful dog; and the enormous reptile that was taken alive by the soldiers of Ptolemy Auletes,|| and which became as gentle as a domestic animal. Tamed adders, perfectly docile and affectionate, have been seen a thousand times in Europe. In Timauni a serpent was shown to the traveler Laing,¶ which, at the order of the musician, curved itself, rolled itself, and jumped, as obediently and adroitly as the best disciplined

* Iamblich. in *Vit. Pythag.*, cap. xiv. et cap. xviii.

† "In circulatores qui serpentes circumferunt et proponunt, si cui, ob eorum metum, damnum datum est, pro modo admissi actio dabitur."—*Digest.*, lib. xlvii., tit. xi., § xi.

‡ Ælian, *De Nat. Anim.*, lib. xiii., cap. xxxix.; xv, 321; xvi., 39.

§ Philostrat. in *Héroïc.*

|| Tzetzes, *Chiliad.*, iii., n. 113.

¶ Laing, *Travels among the Timaunies, the Kouranko, &c.*, pp. 244–246.

animals.* Among the negroes of Dutch Guinea, there are women who have the occupation of divineresses, one of the proofs of whose supernatural art is to tame the serpent, *papa* or *ammodite*, a reptile of large dimensions, but which is never dangerous, and to make it descend from a tree only by speaking to it.†

Even the asp,‡ so justly dreaded, may be tamed

* I shall quote the passage, to show the extraordinary influence which the Soulimana jugglers possess over serpents. "A droll-looking man," says M. Laing, "who played upon a sort of guitar, the body of which was a calabash, commenced a sweet air, and accompanied it with a tolerably fair voice. He boasted that by his music he could cure diseases; that he could make wild beasts tame, and snakes dance: if the white man did not believe him, he would give him a specimen. With that, changing to a more lively air, a large snake crept from beneath a part of the stockading in the yard, and was crossing it rapidly, when he again changed his tune, and playing a little slower, sung, 'Snake, you must stop: you run too fast; stop at my command, and give the white man service.' The snake was obedient, and the musician continued, 'Snake, you must dance, for a white man is come to Falaba; dance, snake, for this is indeed a happy day.' The snake twisted itself about, raised its head, curled, leaped, and performed various feats, of which I should not have supposed a snake capable."—L. c., p. 245.

In India the snake-charmers are equally adroit, and play many tricks to excite the astonishment of Europeans who have shortly arrived in the country. They also pretend to catch snakes, when these reptiles get into houses. Those who practice this employment are called *Sampoori;* but they are great rogues, and generally take the snake, which they pretend to catch, with them. Among other tricks, they assert that they take a stone from the head of the snake, which has the virtues of an amulet. Major Moor gives an amusing anecdote of his having detected this imposition of extracting a snake-stone, in a Sampoori, whom he employed to catch a snake in his fowl-house. "At the proper moment," says he, "I seized the snakeless hand of the operator, and there found, to his dismay, *perdue* in his well closed palm, the intended-to-be-extracted stone. The fellow made a free and good-humored confession of the trick."—Ed.

† Stedmann, *Voyage in Surinam*, vol. iii., pp. 64, 65.

‡ The asp, vipera *haje*, puff adder? is a snake of a green color, about five feet in length, marked with brown bands; and which, like the Cobra de Capella, has the power of swelling its neck externally when it raises itself to strike its victim. Its venom is most deadly, and is supposed to be that which Cleopatra employ-

without trouble. In Hindostan, sugar and milk, which are given to it every day, suffice to work this miracle. The reptile returns regularly at the accustomed hour to take the repast which awaits him, and never injures any one.* Was it not by an analogous artifice that the Egyptian priests caused inoffensive asps to come forth from the altar of Isis? And by which, so often in Greece and in Italy, sacred serpents came to devour the presents disposed upon the altars of the gods, thus giving to the people a certain presage of happiness and of victory?

There are few stories more common than those of genii being metamorphosed into the form of serpents, and placed to guard subterranean treasures. This belief is still popular in Brittany, in the district of Lesneven.† It is general in Hindostan: and there, at least, it is supposed it is not

ed to terminate her existence after the loss of her imperial paramour. The reptile, although most venomous, yet possesses remarkable social qualities, never living alone, and revenging the death of its fellow with the utmost fury. The jugglers of Grand Cairo possess the art of taming it, and of depriving it of its poison-bag. They have also the art of throwing it into a state of catalepsy, by pressing the nape of the neck with their fingers, so that it becomes stiff and immovable like a rod. The rods of the Egyptian priests who contended with Aaron were probably real cataleptic asps, which regained animation when thrown upon the ground. The asp erects itself when approached—a circumstance which led the ancient Egyptians to assume that it thus guarded the place it inhabited; and to venerate it as the emblem of the divinity protecting the world. It is found sculptured on their temples, erect, on each side of a globe.

The poison of the asp is secreted at some distance from the fangs, and is conveyed to them by a tube which terminates in the pulp cavity, at the base of the fang, where a groove commences, superficial at first, but gradually sinking into the substance of the tooth, and terminating in a longitudinal fissure near its apex. Through this groove the poison is ejected and infused into the wound.—Ed.

* Paulin de St. Barthélemi, *Voyages aux Indes Orientales*, vol. i., p. 477.

† Cambry, *Voyage dans le département du Finistère*, vol. ii., p 25.

always without foundation. Forbes, an English observer, who is generally quoted with confidence in his veracity, relates the following anecdote. In a village of Hindostan, a vault, placed under a tower, contained, it was said, a treasure guarded by a genius, under the form of a serpent. Guided even by the workmen who had built the vault, Forbes caused it to be opened: it was of considerable depth, and he discovered there an enormous serpent, which he compared, by its size, to the cable of a vessel. The reptile, unrolling itself slowly, raised itself toward the opening made in the upper part of the vault. The workmen immediately threw into it some lighted hay, and the serpent died from suffocation. Forbes found there its carcass, but not the treasure, the proprietor having probably carried it away.* The reader will observe, that the construction of the vault was not ancient. The serpent that had been placed there had already attained to a large size, and it must have been well tamed and very docile, to allow itself to be confined there: it also must have known its master well, since the latter was able to carry off his riches, without having any thing to fear from the sentinel which watched over them; and whose life he should then have saved, by restoring it to liberty.

The most dangerous serpents, with the exception of those which are terrible from their strength, cease to be hurtful from the time when they lose their fangs, which are destined by nature to convey the poison, with which they are armed, into the wounds that they make. To make them bite several times, a piece of rag or some stuff, such as *felt*, is held out to them; and thus the reservoirs of venomous liquid are drained—a circumstance which is

* *Oriental Fragments*, p. 84.

often sufficient to prevent their bite, for one or more days, from carrying with it any danger. In the capitals of Europe, and in the savage interior of Africa,* one or other of these secrets is used by those impostors who play with snakes before the eyes of a frightened crowd.† Both will explain the gentleness of the serpent, which, a hundred

* *Voyages and Discoveries in Africa, &c.*, by Oudney, Denham, and Clapperton, vol. iii., pp. 39, 40.

† Our author labors to prove, that the serpents played with by the Indian and Egyptian jugglers are either harmless serpents, or those from which, as the Abbé Dubois would lead us to believe, the venom fangs have been extracted.* But there can be no doubt that the ancient Psylli had some method of fascinating all kinds of serpents; and the art may be still known to their successors in Egypt and Hindostan. In the Psalms (lviii., vers. 4, 5), we find the words, "Like the deaf adder that stoppeth her ear; which will not hearken to the voice of the charmers, charming never so wisely:" a proof that the art was formerly practiced. The serpent usually exhibited by the Hindoo charmers is the Hooded Serpent, *Cobra de Capello* (*Naja lutescens* of Laurenti), one of the most venomous of the tribe. Music, which seems to be peculiarly delightful to that description of serpent, is the power by which they appear to be fascinated. The reptile raises itself from the ground, and keeps time, by the most graceful movements and undulations of the head and body, to the notes of the flute. When the music ceases, it sinks down, as if exhausted, in a state of almost insensibility; when it is instantly transferred to the charmer's basket. That such snakes are still poisonous is verified by a fact, related in Forbes' Oriental Memoirs (vol. i., p. 44; vol. ii., p. 387). On the music stopping too suddenly, or from some other cause, the serpent, which had been dancing within a circle of country people, darted among the spectators, and inflicted a wound in the throat of a young woman, who died in agony in half-an-hour afterward.

The structure of the ear in serpents does not indicate the faculty of acute hearing; yet, when newly caught, these reptiles seem delighted with music, and writhe themselves during its continuation into graceful attitudes. I am of opinion that, although coated with scales, yet the sensibility of the serpent is great, and the vibration of sound is felt over the whole body, and when the notes are harmonious, the effect is soothing. The Hindoos, from seeing the docile character of venomous serpents in the temples, believe that the deity has condescended to adopt that form.—Ed.

* *Description of the People of India*, pp. 469–479.

years ago, was seen by two French travelers,* in Upper Egypt; and which superstition represented, by turns, as an angel, as one of the benevolent genii, and as the demon who formerly strangled the first six husbands of the wife of the young Tobias.

Hindoo jugglers, says a traveler, allow themselves to be bitten by snakes,† and when the strength of the poison causes the wounds to become extraordinarily inflamed, they suddenly cure them with oils and powders, which are then sold to the spectators.‡ The swelling is certainly only apparent; the art of counteracting the effect of a poison which has already entered the system, and is so much advanced in its progress, is too wonderful to be lightly believed. For fortifying themselves against danger from the bites which they encounter, it is sufficient for the jugglers to force the reptile, previously, to exhaust the reservoirs in which its venom is inclosed. It can not be doubted but that they make use of this secret; since Koempfer§ has seen

* *Voyage du Sieur Paul Lucas en* 1699, vol. i., pp. 72–78, &c.—*Voyage du Sieur Paul Lucas en* 1715, vol. ii., pp. 348–354.—*Voyage fait en Egypte par le Sieur Granger*, pp. 88–92.

† Terry, *East India*, sect. ix.

‡ The snake-stones, mentioned in a former note, are generally employed by the Indian snake-charmers, to render the bites of the snakes, which they pretend to be still venomous, innocuous. "He suffers himself," says Major Moor, detailing an exhibition of this kind, "to be bitten by the seemingly enraged reptile, till he bleed. He then, in haste, terror, and contortion, seeks a snake-stone, which he is never without, and sticks it on the wound, to which it adheres. In a minute or two, the venom is extracted, the bitten part recovers, and the stone falls off, or is removed. If put into a glass of water, it sinks and emits small bubbles every half-score of seconds. This is the usual test of its genuineness; and it is odd if no one will give a rupee, or half-a-rupee, for such a curiosity.*—Ed.

§ Koempfer, *Amoen. exot.*, p. 565 et seq.—Lacépède, *Hist. Nat. des Reptiles*, art. *Du serpent à lunettes ou Nagâ.*

* *Oriental Fragments*, p. 80.

it put in practice in the same country, by those jugglers who teach the serpent Naja (Cobra de Capello), the poison of which is so justly dreaded, to dance.

But to suppose that the venomous bite of a reptile is not dangerous to certain men, but proves mortal to all others, is an assertion belonging peculiarly to the fabulous; the numerous passages in books of travels, in which the power of charming serpents is mentioned, must be interpreted in an allegorical sense. In China there are men who appear to be as bold as the ancient Psylli, and who expose themselves to bites apparently dangerous, but who can only be looked upon as clever impostors. In vain do the Latin and Greek writers assure us, that the gift of charming venomous reptiles was hereditary in certain families, from time immemorial; that, on the shores of the Hellespont, these families were sufficiently numerous to form a tribe; that in Africa the same gift was enjoyed by the Psylli; that the Marses in Italy and the Ophiogenes in Cyprus possessed it, for, on examining their origin, we find that the former pretended to derive it from the enchantress *Circe*, the latter, from a virgin of Phrygia united to a sacred dragon.* They forget that, in Italy, even at the commencement of the sixteenth century, men, claiming to be descended from the family of St. Paul, braved, like the Marses, the bites of serpents.†

To repel a statement which seemed too wonderful, the evidence of Galen may be brought forward: he says that in his time the Marses possessed no

* Plin., *Hist. Nat.*, lib. vii., cap. ii.—A. Gell., *Noct. Attic.*, lib. ix., cap. xii.; lib. xvi., cap. ii.—Strabo, lib. xiii.—Ælian, *De Nat. Animal.*, lib., i., cap. lvii.; lib. xii., cap. xxxix.

† Ascensius, Note in A. Gell., *Noct. Attic.*, lib. xvi., cap. ii.

specific secret, and that their art was confined to deceiving the people by address and fraud;* and that it may be concluded that fraud and address had, alike, been put into practice at all times. The assertion of the physician of Pergamus is not destroyed by a well known anecdote in the history of Heliogabalus.† This emperor made the Marsian priests collect serpents, and caused them to be thrown into the circus at the moment when the people came there in crowds. Many of them perished from the bites of these serpents, which the Marses had braved with impunity.

Travelers worthy of credence have at length arisen, and have said to us, "I have seen." Thus says Bruce, Hasselquist, and Lemprière;‡ and they have been convinced by their own eyes, that in Morocco, in Egypt, in Arabia, and above all, in Sennaar, there are many men who have such a peculiarity of habit that they disregard the bites of vipers and the sting of scorpions; and both not only handle these reptiles with impunity, but also throw them into a state of stupor. To complete their resemblance to the ancient Psylli, they assured Bruce they were born with this marvelous faculty. Others pretended to owe it to a mysterious arrangement of letters, or to some magic words which resembled the ancient songs used for charming serpents; and furnished a new example of the habit, so prejudicial to science, of concealing a physical secret, in attributing its effects to insignificant and superstitious practices.

* Ælian, *Libr. de Theriac. ad Pison.*

† Lamprid. in *Ant. Heliogabal.*

‡ Bruce, *Travels to discover the sources of the Nile*, vol. x., pp. 402, 403, 412–447. Hasselquist, *Voyage in the Levant*, vol. i., pp. 92, 93, 96–100.—Lemprière, *Voyage dans l'empire de Moroc et le royaume de Fez, en* 1790, 1791, pp. 42, 43.

Doubts upon this subject, if they could have existed, were removed forever at the time of the brilliant expedition of the French into Egypt; and the following relation is attested by thousands of eye-witnesses. The Psylli who pretended, as Bruce had related, to possess the faculty which distinguished them, went from house to house to offer their assistance to destroy serpents of every kind, which were almost common there. If we may believe them, a wonderful instinct drew them at first toward the place in which the serpents were hidden. Furious, howling, and foaming at the mouth, they hurried there, and then, rushing upon the reptiles, they seized and tore them asunder with their nails and teeth.

Let us place to the account of charlatanism, the howlings, the foaming, and the fury, in fact, all that recalls the painful efforts which the Marses feigned, in repeating the songs proper for destroying the reptiles;* still the instinct which warned the Psylli of the presence of the serpents has in it something more real.

In the Antilles, the negroes discover by its odor a serpent which they do not see; a power in fact owing solely to the nauseous odor which the serpent exhales.† In Egypt, the same tact, formerly possessed, is still enjoyed by men, brought up to it from their infancy, and born, as with an assumed hereditary gift, to hunt serpents, and to discover them even at a distance too great for the effluvia to be perceptible to the dull organs of a European. The principal fact above all others, the faculty of rendering dangerous animals powerless merely by touching them, remains well verified;‡

* *Venas intendens omnes.*—Lucil., *Satyr.*, lib. xx.
† Thibaut de Chanvallon, *Voyage à la Martinique.*
‡ It is extraordinary to find an individual so little credulous as

and we shall, perhaps, never understand better the nature of this secret, celebrated in antiquity and preserved to our time by the most ignorant of men.

Some reflections on this subject will not, perhaps, seem here out of place.

The senses of animals resemble our own, but the resemblance is not complete: we can not perceive some substances which affect them strongly; and they do not seem differently affected by those which appear to us the most dissimilar. This is true of the sense of smelling.* The dog, who possesses so exquisite a nose, so susceptible of delicate impressions, of which nothing can give us a correct idea—the dog seems to make no difference in the pleasure derived from a sweet perfume and a fetid or an infectious odor. So marked a difference existing between our sensations and those experienced by animals, explains why they may be acted upon by causes which are inadequate to affect the senses of men. At Rome, dogs never entered the temple of Hercules; the smell of the club which the god had formerly left at the door was sufficient, after fourteen centuries, to banish

our author, respecting circumstances of a marvelous character, believing the possibility of rendering poisonous serpents powerless merely by touching them. If we can believe the existence of such a power, upon what ground can we venture to deny the reality of any apparent miracle, which we may see, or read of, however contrary to the course of nature? The fangs of serpents are equally defensive and offensive weapons; and as the instinct of the reptile leads him to regard man as his enemy, it is not likely that he would submit to his control, unless as the result of a long course of training, which is the most probable explanation of the phenomenon mentioned in the text. I can not credit the possibility of such an effect being produced upon newly caught serpents, utter strangers to the juggler; and, therefore, the performance must be placed among the numerous other feats which attest the high degree of perfection in the deceptive art, to which these serpent-tamers have attained.—Ed.

* Ælian *De Nat. Anim.*, lib. vi., cap. xxxiii.

them from it.* The priests, no doubt, were careful to renew, from time to time, the odor which perpetuated the miracle, and which was not apparent to the senses of men. Albertus Magnus† possessed a stone which attracted serpents. If any part of this tale could be true, we should attribute it to an analogous cause: reptiles, like many insects, are susceptible of being much affected by odorous emanations.

Galen had, I think, been deceived by a false declaration which the Marses and the Psylli had made for the better concealment of their secret, when he says that they owed their power over serpents to the habit of nourishing themselves with the flesh of vipers and venomous reptiles.‡ Pliny, Ælian, Silius Italicus, have more correctly ascribed it to the employment of an odorous substance which stupefied the serpents, and with which it appeared their enemies rubbed their bodies.§ This proceed-

* Solinus, cap. ii.

† Albertus the Great, or Magnus, the word Groat, his family name, the Dutch for Great, being thus Latinized, was a Dominican, born in Suabia; and who, after he had been made Bishop of Ratisbon, abdicated, and returned as a plain monk to his convent at Cologne, where he died in 1282, in his seventy-seventh year. His *Historia Animalium* is the most remarkable of his works. Numerous prodigies have been attributed by the multitude to him; among others, that he made an earthen ware head that could answer questions. Thomas Aquinas is said to have been so terrified when he saw it, that he broke it in pieces; upon which the mechanist exclaimed, "There goes the labor of thirty years!"* If the apparent speaking of this head, and similar speaking-heads, were not the result of ventriloquism, no idea can be formed of the means employed to effect the prodigy.—Ed.

‡ Galen, *De Art. Curator.*, lib. ii., cap. xi.

§ "Ut odore sopirent *eos* (serpentes)," Plin., *Hist. Nat.*, lib. vii., cap. ii. The same author observes, that the Ophiogenes of the isle of Cyprus, above all, exhaled, in spring, a strong, poisonous odor.—Lib. xxviii., cap. iii.—Ælian, *De Nat. Anim.*, lib. xii., cap xxxix.; lib. xvi., cap. xxvii.

* Brewster on *Natural Magic*, p. 159.

ing inspired the Psylli with so much confidence, that they did not hesitate to expose new-born infants to the bites of serpents, under the plea of assuring themselves of their legitimacy;* or, rather, in accordance with their suspicions, to destroy the presumed fruits of the adulterer. Bruce assured us that the secret of the Egyptians and Arabs, in bearing the bites of serpents with impunity, consists in bathing themselves in a decoction of herbs and roots, the nature of which they carefully conceal. Forskhal informs us, that the Egyptians charm serpents with a bitter-wort, an *aristolochia*, with the species of which he was not acquainted. According to Jacquin, the *aristolochia anguicida* is the plant which is employed by the indigenous tribes of America† for the same purpose.

At this day, when the traces of the emigrations which had conducted people from the plains of Tartary into equinoctial America have been discovered, it is not surprising to find this secret propagated in the New World. After being convinced of its great antiquity, comparing the narrations of

. . . . Et somnum tacto misisse Chelydro.
Sil. Italic., lib. v., v. 354.
. . . . . . Et Chelydris cantare soporem,
Vipereum que herbis hebetare et carmine dentem.
Ibid., lib. viii., vers. 496, 497.

An impostor caused himself to be bitten in public by asps: Ælian thinks that he used a beverage prepared to preserve himself from the consequences of the bite. But this could only be an artifice destined to hide the true secret.

* The Psylli never divulged to their wives the secret. "*Mulier enim. Psylla esse non potest.*" (Xiphilin., in *August.*—Ælian, *De Nat. Anim.*, lib. i., cap. lvii.) Their modern disciples have not imitated their reserve. Hasselquist (vol. i., pp. 96, 97) mentions a woman who, under his eyes, rendered serpents completely powerless.

† Hasselquist, *Voyage dans le Levant*, vol. i., p. 100. This species of aristolochia is a twining plant, with oblong, sharp-pointed, cordate leaves, with solitary heart-shaped stipules surrounding the stem, and an erect, dilated corolla, with a lanceo-

modern travelers with those of ancient historians, it is much more astonishing that we never rediscovered it in Hindostan. It existed there, in fact, from time immemorial.

By the side of every secret of this kind, we are almost certain to find some custom which has so far rendered the discovery of it necessary, and to which, on the contrary, it owes, in part, its birth. In Hindostan, in order to ascertain the truth of an accusation, "they throw a hooded serpent, called *naga*,* into a deep pot of earth, into which they let fall a ring, a seal, or a piece of money, which the accused is obliged to take up with his hand. If the serpent bite him, he is declared guilty; and,

late, somewhat truncated lip. It is a native of Mexico, where the juice of the root of the plant, mixed with saliva, and called Gti-Gtii, is poured into the wound made by the bite of a serpent; and, after being left undisturbed for some time, insures the safety of the bitten person. Such is the description of its use and its effects by Jacquin.—Ed.

* The naia *tripudians*, the Cobra de Capello, or hooded serpent of the Asiatic Portuguese. It is characterized by the expansive neck, which covers the head like a hood; and, when thus dilated, displays upon its upper part two oval disks, united by an arch, which produce the resemblance of a pair of old-fashioned spectacles laid upon a beautifully ribbed and dotted ground. Its length is from six to fifteen feet, and its general color brown. It is the most venomous of the Indian serpents, and its bite is mortal; but, nevertheless, it is rendered docile by music, by being pampered with milk and sugar, and by kind treatment. It is an object of worship in some of the Hindoo temples, and is stated by the priests to be the form which the deity occasionally assumes. When enraged, and about to strike, it raises its head and part of its body, and dilates the hood, while the rest of the body is coiled up on the ground to give force to the spring. Dr. John Davy, in his *Account of Ceylon*, mentions having seen a hen bitten by one of them: it kept its hold for two or three minutes, and was then shaken off by Dr. Davy. "The hen, which at first seemed to be little affected, died eight hours after she was bitten;" but so long a time seldom elapses between the bite and the death of the animal which is struck. The poison, when recent, is colorless, limpid, and in consistence resembles a solution of gum-arabic in water; it is acrid, and loses much of its virulence after being kept.—Ed.

on the contrary, if not bitten, innocent."* It was thus in Egypt that the sacred asps, the intelligent ministers of the vengeance of Isis, gave death to evil, and respected good men.†

* *Asiatic Researches*, vol. i., p. 473. We find that the greatest part of the Hindoo ordeals are equally used in Pegu, among the Burmese.

† Ælian, *De Nat. Animal.*, lib. x., cap. xxxi.

END OF VOLUME I.

